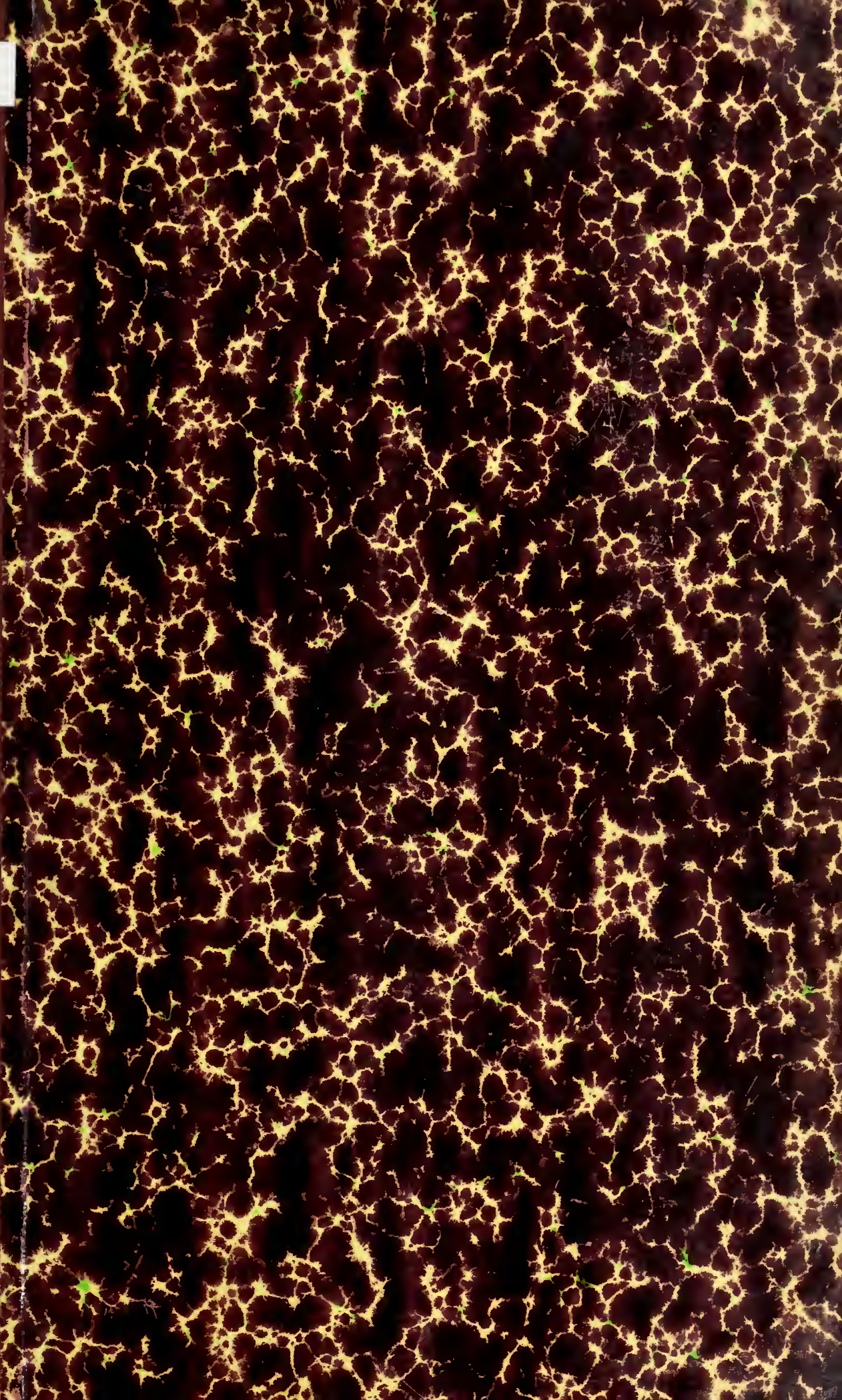


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Correspondence

To the Editor.

I am a subscriber to your Journal since I obtained in Los Angeles license C-r 54 as physician and surgeon, and even before. I like it more and more, and I insist upon congratulating you upon your fine editorials. They are brief, terse, to the point. Ament your November issue, allow me a few brief and terse remarks.

First, the fellow who figured out that there are too many physicians in America should have been here last year in October when I, a man of 59 years, in the absence of so many confreres who were serving Uncle Sam in the army, had to work like a beaver 16 hours a day in order to satisfy in a small way the manifold demands of the suffering.

Secondly, going as it were from the sublime to the ridiculous, the little stories related by Dr. W. Montgomery in his reminiscence of the Obstetrical Society of San Francisco, might be supplemented by one, a confrere of mine, experienced in his second year of medical practice. He attended a primipara, which made very slow progress; the husband grew uneasy and insisted on a consultation with old Dr. Smith, a quack, who had had many convictions to his record for illegally practicing medicine. The young physician quite reluctantly consented to the consultation. Old Dr. Smith proposed at once quilling. "What do you mean?" said my young confrere. "I will show you," came the answer. Here Dr. Smith filled a goose quill opened at both ends with smoking tobacco, blew it into the nostrils of the woman primipara; the latter was taken with a violent sneezing. At the third sneezing the baby was born, expelled by one extreme contraction of all expulsive muscles.

Sincerely,

(Signed) THEO. J. JACQUEMIN,
506 Clinton Ave.,
West Hoboken, N. J.

Notices

TO COUNTY SECRETARIES

When reporting the names of new members you are asked to send the name in full (not initials) stating it as given in the California license to practise medicine issued to such member. Furthermore, when a woman physician's name is presented if she is married since her California license was issued you should also give the name under which she was licensed to practise medicine.

Please report all deaths of physicians in your locality, whether members of the Medical Society or not to the secretary. By this co-operation you will enable this office to keep its system of records complete.

It is important that members understand that if 1920 dues are not paid by March 1, their name is taken from the mailing list for the Journal and is not reinstated until such time as dues are paid. Also, that by non-payment of dues for several months members lose their medical defense protection during the time in which they are delinquent. Thus, if a member does not make payment of dues until August 1, 1920, he is not protected from January 1 until August 1.

TO AUTHORS

Authors must not use ink in making corrections on proofs sent them from this office. The ink is absorbed and blots the corrections made so that in many cases it is almost impossible to decipher them.

TO PHYSICIANS

It is a violation of the Harrison Narcotic Law to move your office even from one room to another in the same building without notifying the internal revenue office of the change within the calendar month.

State Society

Two meetings of the council have taken place, one held October 18th in Los Angeles, and a second in San Francisco, November 8. Besides the general routine business the important question of the meetings was that of the fee schedule for industrial accident cases. The committee of the Council which has been working for the past three months made its report at this time. The substance of that report was that a general revision of the fee schedule had been undertaken with a 25 per cent. raise in fees. The committee had also devised new blanks for the reporting of industrial accident cases which were very much simpler than those now in use and will reduce the office work of the physicians attending these cases. The effort of the committee at first had been to get a 50 per cent. raise in fees and to establish flat fees for definite types of cases; that is, to have a definite compensation for cases which run in usual types, such as well recognized fractures and dislocations, this fee to cover the entire course of treatment. This increase, however, seemed more than the carriers could possibly agree to.

The entire subject of the fee schedule, after action of the council, must be presented before the State Compensation Insurance Fund and the various carriers for their approval. At the present writing it seems as if an agreement will be obtained upon the essential points in the schedule.

Provision is also made in the schedule for the compensation of physicians who have cases taken out of their hands and sent to other men. It has been thought for a long time that this was a gross injustice to the man who originally took care of the case and rendered valuable aid. As the situation stands in the proposed schedule, the physician rendering the first assistance will be given adequate compensation for his services, while the man who gets the case subsequently will receive it less a certain proportion of the total compensation.

Another important question which was presented before the Council at this meeting was the resolutions from the various societies of anesthetists throughout the state. Some effort is being made to establish a ruling by which anesthetics shall be given only by regularly licensed physicians. The Council recognized the magnitude of this problem and has referred it to the House of Delegates at the next regular meeting of the Medical Society.

NOTICE TO MEMBERS

In many instances members returning from United States Government service failed to notify the Medical Society, State of California, 930 Butler Bldg., San Francisco, of their return to civil practice and their permanent address, and in consequence there were many complaints of failure to receive the Journal. When the State Society office is notified by the Postoffice Department that it is impossible to deliver the Journal because of the removal of an addressee whose whereabouts are unknown, we are obliged to take such a member's name off the mailing list until such time as we receive word from him as to his correct address. PLEASE BEAR IN MIND THAT YOU SHOULD NOTIFY THE MEDICAL SOCIETY, STATE OF CALIFORNIA, 930 BUTLER BLDG., SAN FRANCISCO OFFICE WHENEVER YOU MAKE A MOVE that the necessary change may be made on our mailing list. THIS IS IMPORTANT if you wish to receive the Journal.

REMEMBER, also, that if your name is to be included in the Roster of Members for the year 1920, published by the Medical Society, State of California, your payment should be made to your County Secretary and reported to this office by March 1st.

SANTON POPE, Secretary,
Medical Society, State of California.

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Contributors, subscribers and readers will find important information on the sixteenth advertising page following the reading matter.

VOL. XVII

JANUARY, 1919

No. 1

SANTA BARBARA, 1919.

The plans of the Committee on Scientific Program for the annual meeting of the California State Society of Medicine in April are rapidly maturing. A somewhat different program policy is being developed. Quality and not quantity will be the object. Various features are already outlined which will assure a meeting well worthy the attendance of every doctor in the state. It would be advisable to secure your reservation at the Hotel Potter, Santa Barbara, very early this year. There is still opportunity for a few additions to the list of papers to be presented. Those desiring to present papers should communicate at once with the secretary of the program committee, Dr. F. M. Pottenger, Monrovia. The number of papers will be considerably reduced. Special attention will be devoted to civil rehabilitation and the translation of military medical experience into terms useful in civil and post-bellum practice.

REDUCING INDUSTRIAL FATIGUE.

California industries are to a large percentage represented by agriculture in some form. Factories and industrial plants of similar sorts have thus far received the major emphasis in considerations of industrial hazards, handicaps and factors of increased production. It is probable that all industrial activities, including agriculture, will soon receive merited attention from these standpoints. As in all industrial advance, the physician is closely associated here and will have an important part to play in the future development of California on industry, including agriculture. In this latter regard the physicians of rural and small town districts will be chiefly concerned.

A recent study of methods for reducing indus-

trial fatigue¹ arrives at conclusions which are to a great extent applicable to agriculture as well as to more centralized industries. Industrial fatigue is a handicap to the worker, as it affects his health and earning power, and to the employer as it decreases production and makes it more expensive. Industrial fatigue is measured by decreased output, decreased consumption of power and material, and by the amount of spoiled work, accidents and sickness. There are also various objective laboratory methods of measuring fatigue, through study of muscles, nerves, sight, hearing and metabolism.

Fatigue may be reduced in certain definite ways to mutual advantage of worker and employer. Recess periods and variety of work are among the most important methods. Good ventilation, adjustable seats, elimination of unnecessary motions and alternation of day and night work, are all to be considered. Sanitary conditions deserve special attention. Adequate and proper lighting, abundant drinking water, attractive rest rooms especially for women, clean modern toilets and good washing facilities, should be provided. Omission of Sunday work and sanitary living conditions are important.

It would be worth while for every physician to figure a little on the application of these various points to whatever industry is located in his immediate vicinity. How would you study the industry to find what was needed? What specific changes would you recommend? What definite things would you advise to decrease accidents? What types of accident are most common and why? What diseases are most common and why? Here is a line of study open to nearly every physician, whether in city or country, and offering very definite personal and public rewards.

¹ U. S. Pub. Health Service, Pub. Health Reports, Aug. 16, 1918.

OF FADS AND SPECIALISMS.*

The plant that is healthy, exhibits its exuberant vitality in side-shoots, suckers and indiscriminate new growth. A substantial portion of this new growth is directed in the general line of development which nature designed for the plant. The suckers and other exuberant evidences of over-abundant vitality, once in a great while furnish some bud or branch which proves worthy of inclusion in the general structure of the parent plant by the gardener. As a rule, however, the suckers are pruned off by the gardener and serve a two-fold function. They rot and enhance the general fertility of the soil, while the sap which once flowed into them is diverted to the general strength and beauty of the plant.

Thus medical science is a plant and Time the gardener. Its exuberant over-abundant growth in this generation is exhibited by the large cult of fads and specialisms which encumber its progress, suck up its sap and at times seem almost to smother some of its more tender branches. These fads and specialisms, however, bespeak a super-abundant vitality both of the plant of medical science and of the plant of knowledge and judgment in the human race. Time, the gardener, here also exercises his all-important function. Some few side-shoots and excrescences he finds good and incorporates in the mother plant. The great bulk, however, he cuts off and their rotting decadence adds fertility to the soil of medical progress and enriches the horizon of scientific history, while the sap that once was theirs, flows with added power in the veins and channels of the science of modern medicine. So has it been, so is it, and so shall it be. They serve their purpose and their time, add their mite to human progress, and vanish, to leave place for new crops of similar significance and equal permanency.

From many, observe a few examples. Osteopaths have no moral right to be called physicians or surgeons, but only osteopaths. As members of a specialism, exercising a certain limited function, they have a place in the sun and a right to offer their services to the public. They have no moral right to offer services which they have not been educated to render and which, from lack of proper education, they are incompetent to perform. For them to pose as physicians and surgeons, is plain declaration that they do not consider osteopathy as

complete or desirable as the practice of medicine and surgery, and that they are unsatisfied with what osteopathy offers. Let them be a specialism in the great field of the preservation of human health.

If they have a definite contribution to scientific medical practice, time will evaluate it and they will receive recognition definitely proportioned to the value of that contribution. If they prove to bring no such contribution, time will automatically eliminate them. Time and nature are the great purifiers, the great experimental scientists, and infallible physicians. What is good, they keep. What makes no contribution to life and renders no real service, they prune off and discard. Let time decide and not ourselves. For our part, let us do our own work, content to abide by time's decisions.

Homeopathy has undergone a decrudescence illustrative of this principle. Many other specialisms and fads, both within the circle of the profession, on its borders and outside even hostile to it, have had their day, risen, flourished, survived or fallen, according to the real contribution they could make to the healing art. "The art is long and time fleeting," were better rendered, "The art is long and time is its preceptor." Eddyism, as a type of present-day mental healing fads, will have the same experience. What time proves of value in it, will survive. Better, what it has picked of random truth from the tree of human knowledge, what it has selected for itself of surviving truth from older and well-delineated systems, will continue to functionate for a time, doubtless, under the guise of an Eddyistic specialism, eventually as part and parcel of the great science of the preservation of human life.

We do not fear time's judgment. The prunings of life's gardener do not terrify us. We do not hesitate to accept all that is good, and proved, and useful, no matter whence its origin. Why think it strange that new knowledge and new revelations of enduring law can only come from approved and accepted sources? We are physicians. That is, we delve in the processes of nature herself. We are doctors. That is, we are teachers and leaders. We work hand in hand with nature. We interpret nature to human-kind and reconcile men to nature. We hold fast to what is good and discard that which has no contribution for our work. Here is our credo, and here our ideal.

Certainly let fads and specialisms flourish. Out of them may come new building stones. They may but serve to enrich the soil and increase its fertility. Whatever things in them are good, will survive, and after being pruned by time, will be incorporated in the complex body of medical science. We do not fear them. We do not nurture them. We await time's judgment. For the living, sentient body of scientific medicine is vastly greater than any of its parts. It is in constant growth and constantly it sloughs off the binding ties of outworn beliefs and disproved traditions. Its constant change is its life. Surely it is vital and big enough to demand our allegiance, not to any of its numerous and often distantly related branches, but to the great and strong central organism of medical science.

* A specialty is taken to be a narrow department of a large field, approached through the door of wide acquaintance with the entire field, and based on a solid foundation of broad education and specialized research and thought. A specialism may be considered a narrow department inhabited by one who never sees the broad field, and who is unfitted by lack of a solid foundation, to appreciate or study the broad field.

SCHOOL ATHLETICS.

The post-war period of civil rehabilitation offers some of the knottiest problems with which physicians of this generation have had to deal. Two factors contribute to the urgency and difficulty of their solution. One of these factors is the public civil urge for improvement in social, economic and health conditions, an urge which will become irresistible with the addition of the demobilized military to the civil population. The other factor is the necessity for translating our military experience into terms applicable to civil problems following the war. To no post-bellum problem are these two factors more closely related than to the problem of school athletics, and amateur competitive athletics. And to no problem has less attention so far been given, seeking to satisfy the conditions of the two factors just enumerated.

It is unnecessary to review the observations and data of the last decade showing the physical evils of over-training and over-straining induced by competitive school athletics. In his annual report for 1912, Surgeon-General C. F. Stokes, U. S. N., recommended, in view of these evils, that "athletics in the Navy be so regulated as to avoid these deleterious conditions by the prohibition of endurance contests where the ability to win is largely, if not entirely, dependent upon brute force, and that rather the maximum effort be made to develop a symmetrical, normal physique in the many instead of a highly specialized human machine in the few." For the "win at any price" slogan, faculties, trustees, student bodies and alumni were alike and equally responsible. This policy must give way to one which is saner, more modern and more scientific.

The general opinion among medical and military men, that something is wrong with the old system of athletics, is exemplified in the system of physical development developed in the military organizations. The results of this system, whereby every individual receives all-around symmetrical development, are universally beneficial. It remains to re-organize school and college athletics on similar lines. The proved methods of military physical training must be taken over into school and civil life, and similar beneficial results will as certainly follow. The proper function of universal military training, which it is earnestly hoped will be established in the United States at once, is to inculcate discipline, provide proper physical training, both normal and corrective, and to develop a homogeneous national sense which is our strongest bulwark against anarchy and foreign invasion. These great lessons from military experience must not be lost.

The re-organization sadly needed in school and college athletics is epitomized by D. F. Luby¹ as follows: "All branches of athletics must be reclassified on the basis of their effects on the heart and other vital organs, and we must discard the old classification based upon popularity and commercial advantage. In the grammar school the form of athletics in which a boy would be per-

mitted to engage would depend upon his family and personal history, his physical status, height, weight, etc." The same system would follow in high school and college, combining both physical and tactical athletics. "Outside competitions with other schools would be reduced and the competitive idea find its illustration principally in inter-class games. Work in the gymnasium should accompany and parallel the work done in teams and athletic games. Mass competition, such as that in which a class would participate as a whole, is to be encouraged. New feats of prowess should be introduced. There should be walking contests, wall-scaling contests, obstacle racing, hurdling, soccer football, etc. Athletics of to-day must be remolded and their object clearly defined. Athletics can surely have no better purpose than to develop a robust and healthy boy who, though he may not be an interscholastic champion, will nevertheless enter upon his life work with a symmetrical, fully-developed body, capable of resisting disease and of enduring physical strain."

EDITORIAL COMMENT.

We need to remind even ourselves that the term "practice of medicine" no longer means "practice of physic." We have here an example of the transference of a name to a developing idea, which idea connotes and includes vastly more than the name applied to it. The "practice of medicine" is a survival which should be supplanted by a name of exact definition and connotation, based on sound generic classification, and suited to the modern scientific idea of the preservation of human health by all methods available.

The British parliament, in 1915, instituted a board of liquor control, which had also to do with maintaining the efficiency of workers. This board established canteens and eating houses which were comfortable and attractive. The proprietors were paid on a commission basis, a larger rate being allowed on edibles, and no commission allowed on intoxicants. Lower strengths of spirits and beer were legalized. Every effort was made to lower drunkenness, especially at week-ends. The campaign met with marked success.

There is the best of theoretic and practical evidence establishing masks as perhaps our strongest single weapon in preventing influenza. We know that influenza, like pneumonic plague, is spread by droplet infection, and we know that they both can be prevented by masking. San Francisco's experience demonstrates this conclusively on a large scale. Masking ought to be enforced in every community which desires to eradicate influenza. The mask keeps in the infection in the carrier and ambulant case, and on the other hand excludes infected droplets from the sound person. They are logical, according to our best scientific knowledge. They are practically effective. They ought to be used universally wherever influenza is epidemic.

¹ U. S. Med. Bulletin, Oct., 1918.

In another column will be found an important statement of What Every Disabled Soldier and Sailor Should Know. With demobilization in progress, this information needs the widest circulation. Every physician is urgently requested to help make this information available for all disabled soldiers and sailors, and their families.

The general trend toward lower prices makes it doubly worth while to keep in touch with the advertising pages of the Journal. These pages chronicle the best in medical supplies and institutions, and the busy doctor has the endorsement of the State Medical Society to guide his choice. If you have a location to buy or sell, or anything else to buy or sell, save time and money by putting an ad. in the Journal.

Quarantine is only effective against influenza when absolute. It does not meet the carrier problem or the undiagnosed mild case. It is far less effective than masking, avoidance of public assembly and personal preventive measures, such as abundant fresh air, abundant food, abundant sleep. It ought to be enforced, along with universal masking, as the two together constitute our chief defense against influenza.

The Public Health Committee of the New York Academy of Medicine recommends an amendment to the Sanitary Code making it a misdemeanor to sneeze or cough in public without the mouth and nose adequately covered.

On the basis of experimental work conducted at Johns Hopkins Hospital, Howland and Marriott conclude that tetany is caused by a reduction in the calcium content of the blood below 6. or 7. mg. per 100 cc. The figure varies with different individuals. Symptoms of tetany appear when the blood content of calcium falls to this level, and these symptoms are relieved and prevented by repeated doses of calcium. The calcium deficiency seems to be due to some as yet unknown primary factor and administration of calcium must therefore be constantly maintained for an indefinite period.

In a review by Chaney & Hanna of the safety movement in the iron and steel industries for the decade ending in 1917, issued by the U. S. Department of Labor¹ it is stated that safety men are thoroughly convinced that the use of alcohol is an important factor in causing accidents. The lack of proper statistics on a large scale makes it difficult to estimate the exact extent of this influence. The practically unanimous opinion of as competent a jury as the safety engineers of the country is, however, in itself a weighty argument. The list of industries and plants which forbid the use of alcoholic beverages is rapidly growing. There is no argument in industry favoring booze.

Is it not strange that every nation recognizes the dangers and potential disaster in alcoholic beverages, and yet many persons still insist that education will remedy the alcohol evil. Why not educate people in the dangers of cocaine and morphine, instead of having a Harrison act?

The psychology of war as exemplified in that just ended, shows that in peace-time peoples incline to self-indulgence, become self-centered, selfish, and lose many of their higher ideals. War develops the heroic, the self-sacrificing, lifts people out of themselves and propagates altruism and unselfishness. This it does at a definite price, paid in death, disaster, misery, and suffering. A certain large percentage of this price is paid by innocent persons. Would that we had some vicarious means of securing the great advantages that war brings.

THE FOURTH LIBERTY LOAN THE GREATEST SINGLE EVENT IN FINANCIAL HISTORY

The United States Government asked a loan from the people of the country of \$6,000,000,000, an amount unprecedented in all the history of the world. In three weeks' time, in spite of an epidemic of influenza which prevented public meeting and cost the people many millions of dollars in medical bills and lost time, and in spite, too, of the peace rumors that in some instances had a tendency to make the success of the loan seem less vital, some 21,000,000 of the American people offered to the Government \$6,866,416,300. Each Federal Reserve district oversubscribed its quota. Thousands of cities, towns, and communities oversubscribed their quotas. Secretary McAdoo says that the Fourth Liberty Loan is the greatest single event in financial history.

IMPROVING CITY MILK SUPPLIES

Sanitary milk control—an important factor in city welfare and a big problem of the city health department—receives personal attention from the Dairy Division of the United States Department of Agriculture. Specialists in sanitary production and handling of milk are usually available, and upon request of the city health departments they are sent to assist in improving the milk supply. This assistance may mean the making of a general survey lasting only a few days or a very intensive inspection lasting two or three months.

During the last year personal aid was given to 36 cities in 14 States. In addition to this, assistance was given the United States Public Health Service by conducting sanitary milk surveys and in improving the milk supply of 15 extra cantonment zones.

All phases of city milk supply are covered. Inspection of dairies, milk plants, and other distributing centers are made; samples of the products are taken and analyzed both chemically and bacteriologically. When necessary, help is given in the installation of laboratories and technique and in the interpretation of the results of chemical and bacterial analyses.

Special meetings may be held among both producers and consumers of milk in order to arouse interest in the local milk supply. Advice in framing ordinances to cover dairy and milk conditions is also offered.

An important feature is the milk contest, in which specialists assist in instituting these contests and act as judges in scoring the product to determine the relative standing of milk producers. These contests encourage rivalry among dairymen and, in consequence, tend to improve the milk supply of a city.

¹ Bulletin U. S. Bureau of Labor Statistics, p. 234, June, 1918.

Original Articles

THE TREATMENT AND LABORATORY CONTROL OF DIABETES.*

By LOVELL LANGSTROTH, M. D., San Francisco.

Recently there has been established in the new Hospital Building of the University of California Medical School a laboratory for the study of chemico-clinical problems, and it has been my privilege to have the work on diabetes under my care. In view of the importance of this work and the fact that it is a relatively new venture on the Pacific Coast, I have ventured to discuss before you a few of its interesting phases and to outline the manner in which we follow the progress and treatment of diabetes in the laboratory. It should be explained that such work requires a large chemical laboratory equipped in addition, with such special chemicals and glass apparatus as are required. We have found the work so time-consuming that it has required almost the entire labor of a technical assistant to carry on the work for two or three patients, but are convinced that with greater experience it will be possible to carry on as many as six patients with the same help.

Before taking up in detail the different determinations that are made, it will be of advantage to outline briefly the routine followed in the prescribing of the diet, and the collection and preservation of the twenty-four-hour specimens of urine.

When the patient first enters the hospital he is put on a low caloric diet which contains about one gram of protein per kilogram of body-weight, carbohydrate in amounts varying from fifty to seventy-five grams, and fat according to the apparent severity of the case. After the first twenty-four hours it is possible to form some idea of how much carbohydrate the patient can burn; in other words, to determine the approximate severity of the case. In a mild case the urine will be sugar free perhaps, and all that will be necessary in that particular case will be to determine how much more carbohydrate and fat the patient will tolerate. In a severe case, all of the carbohydrate and perhaps a portion of the protein will be excreted as sugar, and this case will certainly require several days' fast to make the urine sugar free. The amount of acidosis will also have been determined by then. In severe cases with acidosis, it is often wiser to withdraw food gradually, so as to avoid the danger of throwing the patient into coma. This was emphasized to us by the loss of a patient who came into the hospital before the laboratory was prepared to do all of the necessary work. Her ammonia was low on a low caloric diet with moderate amounts of carbohydrate, and clinically she showed no signs of acidosis, so that her fat was withdrawn the first day. The following morning, though she had been on a low protein and carbohydrate diet for the preceding twenty-four hours, she suddenly developed the deep sighing respiration of acidosis, passed into coma and died in spite of all we could do. Had

we known that her plasma bicarbonate was low (it was twenty-two the morning she went into coma) we should have withdrawn her food much more gradually than we did. If a fast is necessary, broth or coffee is given every two hours or as often as desired by the patient. We have found that whiskey often nauseates and do not believe that the few calories furnished by it are of much significance. After the urine has remained sugar free for twenty-four hours, feeding is begun. The amount of food first given will depend on the preliminary twenty-four-hour period before the fast. In a very mild case possibly thirty, forty, or even fifty grams of protein, fat, and carbohydrate may be given. In severe cases only five or ten grams of each element are given. Protein and fat are then gradually raised by five- or ten-gram additions each until the patient is receiving one gram of protein per kilo of body-weight. If acetone bodies are excreted in considerable amounts during this period, carbohydrates are raised instead of the protein, but this must be done more gradually, allowing several days to pass after each addition to determine whether it is going to fall within the patient's tolerance. When the tolerance for carbohydrate and protein is finally reached, fat is added to make up the necessary caloric requirements, and the patient is then ready for discharge. During this period of treatment the method of making out the diet sheets is explained to the patient, who is provided with proper lists of food values and will in many cases be able to arrange his own diets.

The urine is saved in twenty-four-hour specimens and preserved with toluene, care being taken to have the receptacle scoured out each morning with soap and water. The naked weight is taken daily after the patient has voided for the completion of the twenty-four-hour specimen.

When the urine reaches the laboratory it is measured carefully in cubic centimeters and then analyzed quantitatively for total nitrogen, ammonia nitrogen, creatinine, sugar, and acetone bodies.

Nitrogen determinations are made by the Kjeldahl method, or more recently by the direct Nesslerization method of Folin, with a resulting great saving of time. In this method one c.c. of diluted urine is digested with a mixture of sulphuric and phosphoric acids, washed into a volumetric flask, diluted, neutralized, Nesslerized, and compared in a Dubosc colorimeter with a solution of ammonium sulphate containing one milligram of nitrogen and similarly treated and Nesslerized. We feel that the nitrogen determination is hardly an essential element of the urine analysis. Roughly it gives some idea of the amount of protein the patient is metabolizing, but on a varied diet for which the same amount of protein, fat, and carbohydrate is prescribed each day, the number of grams of nitrogen excreted will vary a good deal and take quite unexpected jumps in one direction or the other. This is well illustrated in Chart 5, where it will be seen that while the average nitrogen output varies between four and eight grams, still for the 25th, 26th, and 27th of January, the patient put out respectively nine, twelve, and twelve grams.

* Read before the Forty-seventh Annual Meeting of the Medical Society of the State of California, Del Monte, April, 1918.

Moreover, during starvation an amount of nitrogen which is the equal of about one gram of protein per kilo of body-weight is given off daily in the urine, so that with a low protein diet in which we merely try to replace this body protein a relatively fixed nitrogen excretion should be obtained. Chart 2 will illustrate this point. On the 17th and 18th of December, when this patient was starving, he put out respectively ten and ten grams of nitrogen, and this is about his average output for the whole period of study. Any excess of protein over this amount would show immediately in the urine. If a patient exceeded his given amount of protein a ready means of detecting it would be at hand in the nitrogen determination. It will be noticed in Chart 5 and Chart 1 that for the first three or four days, the nitrogen output is much higher than that of the succeeding days. This, of course, is due to the fact that the patient had been living on a relatively high protein diet before admission to the hospital. A uniform amount of total nitrogen each day can only be expected when the diet for each day is essentially the same in amount and in elements. Turning to Chart 6, a metabolism study of a gouty patient where the diet was liquid and composed of practically the same elements each day, it will be seen that after the 3rd of March the total amount of nitrogen is practically constant each day. A good idea of the nitrogen metabolism can be obtained by summing up the nitrogen for the entire week and then dividing by seven. This amount will be found to compare almost exactly with the amount of protein ingested in the diet. On a mixed diet it will be found generally that less nitrogen is metabolized than when a protein rich diet is taken, and the reason for this is that in the presence of cellulose and indigestible residue, the nitrogen is less completely absorbed than when it is taken in the form of meat, milk, or eggs.

We have determined the urea nitrogen as a part of the nitrogen partition. We are not prepared to say as yet, whether the urea nitrogen has any practical significance for us.

The ammonia has been determined usually by the Folin macro aeration method, but latterly by the Permutit method recently published by him. Here the ammonia is extracted from the urine by a granular material which much resembles sand. It is later liberated by addition of an alkali, nesslerized, and compared with a standard solution of ammonium sulphate similarly treated. This method is very rapid and extremely accurate. We feel that the ammonia figures give only a fair indication of the amount of acidosis. Usually the twenty-four-hour amount will total under one gram, but in the presence of acidosis it will run up to four, or five grams, or even to a much higher figure. As a measure of acidosis, it falls far below the plasma carbon dioxide, because in exceptional cases it will remain low even with severe acidosis. Take, for instance, Chart 1, where from the 15th to the 20th of December the patient excreted amounts of acetone bodies varying from fourteen to nineteen grams. Even with this amount of

acetone excretion, his plasma bicarbonate sank only to just below the lower limit of normal. His ammonia excretion would be expected in the presence of such considerable amounts of acetone bodies, to show quite a rise; but on the contrary, increases to only approximately twice what it was before, and does that rather tardily. It might be pointed out in this same chart that excretion of such amounts of acetone bodies, when controlled by the plasma bicarbonate determinations, is not at all alarming, because we are assured that the alkali reserve has not been impaired to any extent.

Creatinine determinations are made daily. Normally the amount of creatinine runs quite constantly, between one gram and a gram and a half, so that the daily amount may be used as a check on the accuracy of the urine collection. You will see in Chart 2, that there are marked variations in the daily amounts of creatinine. This record was made before we had succeeded in training the nursing staff to make accurate and complete collections of the urine, and when we permitted them to measure the total twenty-four-hour amount in the ward. With creatinine determinations like the ones in this Chart, all the results are open to considerable question. Since then we have initiated the custom of sending the whole twenty-four-hour specimen to the laboratory to be measured by the technician, and the creatinine determinations now run much closer. Take for instance, Chart 4, where the creatinine runs pretty steadily at .8 or .9 of a gram. Occasionally, however, there is a much diminished amount, as in Chart 1, on the 21st of December, when the amount of creatinine dropped to almost one-half what it had been running. On questioning the nurses, we invariably find that there has been some of the specimen lost in some manner. This is, of course, very important in explaining unusual jumps in figures which run pretty constant.

The subject of sugar determinations is familiar to all of you. We use Benedict's solutions for both the qualitative and quantitative work. A word of warning should be given against using the U. S. P. sodium citrate in making up the solution as the results are far less satisfactory. This, of course, is the material which the druggist will use if he makes up the solution for you. Since 60 per cent. of protein may be converted into glucose, we reckon the carbohydrate balance by adding 60 per cent. of the amount of protein given to the carbohydrate in the diet and subtracting the amount of glucose excreted in the urine. In Chart 3, the carbohydrate balance has been expressed in this manner. You will see that the patient had a positive carbohydrate balance on admission, and this is the case with all of the rather mild cases that we have had. Severe cases would, of course, show a negative balance before starvation.

The acetone bodies are estimated by a new method of Van Slyke. This depends on the formation from acetone and mercuric sulphate of an insoluble precipitate which is filtered on a Gooch crucible, dried, and weighed.

The combining power of the plasma for carbon dioxide is determined twice a week, or daily if

Phillipini, William Age 24 yrs. M.15893

Date	Volume	Total N.	Amn. N.	Creatinine	Chlorides	Acetone Bodies	Sugar	Protein	Fat	Carbohydrate	Calories	Sod. Chloride	Carbohydrate Balance	Blood Sugar	Blood Chloride	Plasma CO ₂	Liquid Intake	Naked Weight
Jan. 3	800	8.85	.381	1.22	8.48	.48	24.2	55	110	75	1855	6	+117	.25	5.75	69.1	1500	55.6
4	1100	9.66	.286	1.15	7.70	.452	26.30	55	110	75	1555	7	+115				1500	53.6
5	750	7.88	.218	1.35	3.30	0	0	0	0	0	0	5					2000	55.5
6	1100	12.48	.323	1.35	6.60	.146	0	0	0	0	0	5					2000	56.
7	2150	8.72	.265	1.05	6.88	.393	0	10	10	10	175	3.5		.089	5.25	57.6	2000	55.8
8	1710	11.01	.469	1.17	3.59	.230	0	15	15	10	241	5					2000	55.
9	1900	11.11	.659	1.25	5.89	.334	0	15	15	10	241	5					2000	54.4
10	1800	11.09	.232	1.06	7.20	.233	0	30	30	10	443	5			6.00	59.5	2000	54.
11	1670	10.28	.419	1.14	12.70	0	0	35	35	10	509	5					2000	53.8
12	1610	9.91	.293	1.18	5.15	0	0	35	35	25	571	5					2000	53.6
13	1700	10.47	.209	1.21	7.65	0	0	35	35	25	571	5					2000	53.6
14	1850	9.84	.155	1.07	7.77	0	0	35	35	25	571	5		.093	5.47	70.0	2000	53.4
15	2240	11.91	.163	1.29	8.73	0	0	55	55	25	840	5					2000	53.4
16	2060	10.67	.104	1.26	8.24	0	0	55	55	40	901	5					2000	53.4
17	2350	12.17	.105	1.27	9.87	0	0	55	55	40	901	5		.087	5.81	70.	2000	53.6
18	2390	8.7	.180	1.15	8.12	0	0	55	55	40	901	5					2000	53.
19	1810	6.58		1.12	6.34	0	0	55	55	55	962	5					2000	52.8
20	2050	7.46		1.03	5.12	0	0	55	55	55	962	5					2000	52.6
21	1620	9.97	.145	1.31	5.83	0	0	55	55	55	962	5		.097	5.63	72.9	2000	53.
22	1680	11.58		1.24	6.27	0	0	55	55	70	1024	5					2000	53.
23	1720	9.16	.13	1.19	6.78	0	0	55	55	70	1024	5					2000	53.
24	1950	10.38		1.27	15.28	0	0	55	55	70	1024	5			5.56	69.1	2000	53.
25	1860	13.03		1.20	9.48	0	0	55	55	85	1085	5					2000	53.
26	2050	14.36		1.26	7.38	0	0	55	55	85	1085	5					2000	52.8
27	2040	14.28		1.22	9.79	0	0	55	55	85	1085	5					2000	52.8
28	2000	14.00		1.31	8.40	0	0	55	55	100	1147	5		.101	6.13	71.0	2000	52.8
29	2030	14.22		1.39	7.92	0	0	55	55	100	1147	5					2000	52.8
30	2130	14.92		1.28	7.46	0	0	55	55	100	1147	5					2000	52.6
31	2120	14.85		1.25	8.48	0	0	55	55	115	1209	5		.220	6.13	71.0	2000	52.6
Feb. 1	1950	8.74		1.26	6.02	0	0	56	55	116	1213	5					2000	52.4
2	2480	11.11		1.21	7.44	0	0	55	55	115	1209	5					2000	52.6
3	2370	10.62		1.23	7.58	0	0	55	55	130	1270	5					2000	52.6
4	1480	6.63		1.09	7.25	0	0	55	55	130	1270	5		.114	6.12	66.2	2000	52.2
5	2820	12.63		1.39	7.04	0	0	55	55	130	1270	5					2000	52.2
6	1860	8.34		1.18	5.76	0	0	55	100	115	1627	5		.079	5.56	71.	2000	52.
7	2140	9.59		1.12	9.63	0	0	55	150	115	2092	5					2000	52.
8	2020	8.49		1.16	8.28	0	0	55	150	115	2092	5	+148				2000	

Randall, Mrs. Elizabeth Age 41 yrs. S.13281

Date	Volume	Total N.	Amn. N.	Creatinine	Chlorides	Acetone Bodies	Sugar	Protein	Fat	Carbohydrate	Calories	Sod. Chloride	Carbohydrate Balance	Blood Sugar	Blood Chlorides	Plasma CO ₂	Liquid Intake	Naked Weight	Sod. Chloride in Food
Dec. 31	1025	8.04	.293	.92	9.06	tr.	47.5	General		diet								59.5	
Jan. 1	1130	10.76	.367	.91	9.54	tr.	25.0	60	100	75	1483	7	86				1475	58.6	1.4
2	1650	8.78	.259	.86	9.57	0	0	60	100	75	1483	7	111	.246		67.2	1500	59.2	1.64
3	860	5.90	.224	.87	4.30	.119	0	0	0	0	0	7					1500	59.6	
4	1475	7.44	.322	.89	7.08	0	0	40	40	40	700	7		.162	6.5	62.4	1500	58.8	.789
5	950	11.58	.191	.916	5.79	0	0	50	50	40	834	7					1500	58.	1.32
6	1660	10.23	.381	.735	8.80	0	0	60	60	40	968	7					1500	57.6	.734
7	2000	12.04	.28	.64	7.60	0	0	60	60	55	1029	7		.133	5.88	63.3	1500	57.6	1.38
8	1950	7.29	.297	.81	11.16	0	0	60	60	55	1029	6					1500	58.3	.968
9	1800	7.56	.252	.80	10.8	0	0	54	54	55	948	7					1500	57.4	1.19
10	1800	8.57	.323	.76	7.48	0	0	60	60	70	1091	7			6.44	61.4	1500	57.6	.824
11	1780	7.73	.189	.84	14.42	0	0	60	60	70	1091	7					1500	57.8	1.37
12	1910	8.28	.155	.93	9.55	0	0	60	60	70	1091	7					1500	58.3	1.13
13	1800	7.81	.221	.94	9.9	0	0	60	60	85	1152	7					1500	57.5	1.45
14	1730	8.71	.159	.85	9.68	0	0	60	60	85	1152	7		.176	6.06	63.3	1500	57.7	.858
15	1650	8.31	.212	.93	9.08	0	0	60	60	85	1152	7					1500	57.9	1.25
16	1640	7.34	.193	.82	10.83	0	0	60	60	100	1214	7					1500	59.6	1.23
17	1850	8.29	.129	.86	9.25	0	0	60	60	100	1214	7		.143	6.25	64.3	1500	58.0	1.83
18	1730	9.93	.164	.84	8.82	0	0	60	60	100	1214	7					1500	57.7	1.33
19	1910	10.96		1.26	12.98	0	0	60	100	100	1586	7					1500	57.4	1.33
20	2100	12.05		.890	8.19	0	0	60	150	100	2051	7	136				1500	57.8	1.42
21														.102	6.12	62.4		57.7	

Mrs. M. McNeill Hospital No. M.16114

[illegible]

Actual NaCl in food for Feb. 6 determined as 2.4 gm.
" 7 " " 3.2 gm.

Marion, Mr. Meo

Age 47

Medical 16484

	Date	Volume	Total N.	Urea N.	Ammon. N.	Creatinine	Uric Acid	Sod. Chloride	Protein	Fat	Carbohydrate	Calories	Sod. Chloride added	Liquid in dist	Naked Weight	Uric Acid in b	Sweetbreads
Feb.	25															11	
	26	1404	12.53	10.03	.344	1.35	.693	2.10	41	52	76		5	2000			
	27	1704	14.21	9.42	.465	1.36	.844	3.24	70	100	100		5	2000	65		
	28	1350	11.44	8.70	.520	1.20	.605	2.16	70	100	100		5	2000	64.8		
Mar.	1	900	16.67	6.05	.302	.87	.403	1.35	70	100	100		5	2000	64.6	10.4	
	2	1430	12.63	10.31	.260	1.13	.556	3.00	70	100	100		5	2000	63.5		
	3	1420	12.24	9.74	.179	1.09	.565	2.70	70	100	100		5	2000			
	4	1150	10.27	7.45	.249	1.01	.512	2.30	70	100	100		5	2000	62.4		
	5	1220	10.52	8.54	.350	1.16	.633	2.32	70	100	100		5	2000	62.		75
	6	1200	10.52	7.73	.374	1.11	.612	2.4	70	100	100		5	2000	62.	10.5	150
	7	1060	10.00	8.16	.260	.82	.536	2.54	70	100	100		5	2000	62.		
	8	1070	10.09	8.54	.086	1.18	.499	2.57	70	100	100		5	2000	61.2		
	9	1500	12.50	6.90	.068	1.18	.552	3.00	70	100	100		5	2000	61.		

necessary. It is expressed in volume per cent. of gas combined with 100 c.c. of blood plasma. When abnormal acids are formed, they combine with the bicarbonate of the plasma using up the amount held in reserve and lowering its combining power for CO_2 . The expression of this combining power then is an accurate index of the extent to which these acid substances have been formed in the blood. Most of our diabetics are mild cases and come to the hospital free from acidosis. After a couple of days' starvation, however, they usually develop a slight acidosis, and this acidosis, strangely enough, reaches a climax usually toward the termination of the fast or during the next succeeding days. Take, for instance, Chart 1. On the 15th, his second day of starvation, he put out fourteen grams of acetone bodies. This had increased by the 17th, at which period he was again being fed small amounts of food, to nineteen grams. On this day, when he excreted the largest amount of acetone bodies, his plasma bicarbonate reached its lowest level, fifty-one volume per cent. After that the acetone bodies gradually diminished and the plasma bicarbonate increased. Here the patient began to develop his acidosis during the fast, but it increased strangely enough to its maximum two days after he had begun to be fed. Practically the same thing happened in the case shown in Chart 5. In other words, the acidosis seems to come on as a result of the fast, and this, of course, seems in direct contradiction to the work of Allen, who has shown that in diabetes, fasting diminishes the acidosis. In severe diabetes, this is usually the case, but these mild diabetics more nearly approach the normal metabolism, and as might be expected react to starvation with a moderate acidosis just as a normal patient would. This acidosis diminishes gradually as food is given. I can illustrate this with an example of a young woman who was starving in the hospital for two days in an attempt to decrease her weight. There was no question of any diabetes here, but the patient on the second day had a plasma bicarbonate of 35, or about half the normal amount, and was distinctly dyspnoeic. She excreted eighteen grams of acetone bodies the same day. Her acidosis gradually diminished on feeding moderate amounts of carbohydrates. The increasing formation of acid bodies progressively lowers the plasma bicarbonate. As the plasma bicarbonate reaches a point below 55, we consider that the patient has an acidosis; above this point is within the normal range. A delay in the excretion of these acid bodies would probably result in a disproportion between the amount of acetone bodies excreted and the plasma bicarbonate, the latter being relatively too low. Such a condition might occur in an old patient or a young one with damaged kidneys, and would mean that the acidosis would be harder to counteract. At all events, the plasma bicarbonate is immeasurably the best method of determining the amount of acidosis, because it shows any change at its source. In severe cases, of course, it would be determined every day during the period of fast; later three times a week only. Van Slyke has determined the relation between the plasma bicarbonate and the acid excretion as repre-

sented by the ammonia excreted plus the titratable acid according to Folin. He determines the ammonia excretion and the titratable acidity in c.c. of N/10 acid for a period of two hours, calculating from these figures the total amount for the twenty-four hours, which represents the rate of excretion, and the amount per litre which represents the concentration. These bear a relation to the plasma bicarbonate which is expressed by the formula

$$\text{Plasma Bicarbonate} = 80 - \text{square root of } (D - W - \text{square root of } C)$$

in which D = the rate of excretion

C = the concentration

W = the weight

He found in a series of diabetics that the plasma bicarbonate as determined by this formula agreed with the actual figures within ten points. That is, if the actual plasma bicarbonate reading corrected was 35, the figures reached by the formula would be between forty-five and twenty-five. As a matter of fact it is usually closer than this. We have determined the plasma bicarbonate and compared the actual figures with those of the formula in one case shown in Chart 5. Here the plasma bicarbonate as calculated from the acid excretion and as actually found is shown in parallel columns. The agreement is fairly close, the greatest difference being eight points. This would be sufficiently accurate for all clinical purposes.

We have made blood sugar determinations twice a week on each diabetic patient. Generally the blood sugar has been high on entrance, lowest during the fast, and somewhat higher on a low carbohydrate diet. Recent work has shown that it is highest at about two hours after the morning meal, provided that this is one low in carbohydrate, and this is the time when it has been our practice to take it. Practically it has given us very little information of importance in the treatment of the patients. Chart 5 is characteristic of the sort of results we have obtained from blood sugar determinations. On admission, the blood sugar on a general diet was .326. During the fast it dropped to .112, and a few days later to .089, which is the lower limit of normal. Gradually as the amount of carbohydrate in her diet was raised, the blood sugar rose to .112, which is within the limits of normal. The same thing holds good for other cases. In Chart 3, the patient shows a similar sequence with the exception of one day, on the 31st of January, when his blood sugar made an unexpected jump to about double what it had been. On the whole, our charts are characterized by the lowness of the blood sugar, and this would seem to correspond with the mild type of cases we have had for treatment.

From a practical point of view, the clinician must hold the laboratory responsible for two main points in the treatment of diabetes and these are: first, whether the urine is sugar free, and second, the degree of acidosis. It is important, of course, to know the amount of sugar. If the clinician can be sure of these two points, he can proceed safely with his treatment, provided that he understands the food values and has the necessary prac-

rice in making diet lists from his tables. The large majority of diabetics will necessarily be treated by the physician in general practice. All of our work should tend to make his problem clearer and easier for him. Complicated laboratory determinations are, of course, out of the question, and the ideal methods for the practitioner are the simplest. I am convinced that with the necessary knowledge of the principles of the treatment of this disease, and a little laboratory apparatus, it is possible for him to control these patients properly. The apparatus required will be concerned in the determination of sugar in the urine, qualitatively and quantitatively, and the degree of acidosis. I would suggest for the latter, the calculated plasma bicarbonate figures obtained from the acid excretion. The apparatus involved would be simply that for the determination of ammonia, which consists of the large, thick, 30 m.m. glass test tubes used for the Van Slyke determination of urea N/50, acid and alkali, sodium carbonate, a water pump for air suction, the necessary rubber stoppers, glass connections, rubber tubes, burettes, and indicators. The titratable acidity is determined even more simply by titrating 25 c.c. of urine of N/10 acid, using 1 c.c. of phenolphthalein as an indicator. Now the ammonia excretion for the twenty-four hours is calculated on the basis of a two-hour period expressed in c.c. of N/10 acid and added to the titratable acidity for the same period expressed also in c.c. of N/10 acid. Van Slyke has published curves from which the result can be read off without calculating the square roots necessary in the formula, so that there are no insuperable difficulties in the way of the clinician who desires to know the degree of acidosis in his diabetic patients, and who is willing to devote a few hours' time to simple laboratory work.

THE KARELL CURE REVIVED.

By NATHANIEL BOWDITCH POTTER, M. D.,
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From time immemorial some type of more or less complete starvation has been resorted to, in order to preserve failing bodily functions, and has even been made an integral part of the prescribed observances in more than one great religion. Biological support of the value of fasting has been adduced by many authors, in the hibernation of bears and the summer sleep of crocodiles. The grape cure employed for so many disorders, Naunyn's "green days," and more recently Allen's fasting period for diabetes, as well as Widal's salt restriction in nephritis may well be compared with the Karell Cure, largely employed in heart disease; for this last mentioned diet represents in its essentials a starvation both of food and of liquid. Excepting in a limited number of clinics and by a few physicians, we have until quite recently almost forgotten the well-proved value of this last named cure. Its revival has been justified by its success.

I have so frequently met with ignorance of the exact details of the diet among students, internes, and physicians in general practice, that my remarks upon the strict milk cure of Philippe Karell or upon such modifications of it as have proved useful in my own experience, need no justification.

In 1865, this acute observer, physician to the Czar of Russia, presented to the Medical Society of St. Petersburg, the effects of a carefully regulated milk diet in some 200 patients treated by himself and others.⁵ Too wise a physician to ascribe the value of this diet to any nutritive or medicinal virtue in milk, he did not hesitate to insist upon accurate doses at exact intervals, and to credit its great efficacy when applied "*to all kinds of dropsical conditions, the asthma resulting from emphysema and pulmonary catarrh, to obstinate neuralgias originating from the intestinal tract, to hypertrophy and fatty degeneration of the liver, and in general to nutritional diseases sometimes the result of obscure gastrointestinal catarrh and followed by affections of the central nervous system.*" He limited all liquid or food taken by the patient to skimmed milk in amounts of one-half to one glass (two to six ounces, or 60 to 200 c.c.) and at exact intervals three or four times a day. The patient's taste dictated the temperature of the milk; but Karell emphasized its being swallowed slowly, in very small amounts, intimately admixed with the saliva. If well digested, as proved by the existence of solid stools, the amount of milk was gradually increased, until at the end of the second week, two bottles were usually allowed. He insisted upon a scrupulous observance of regular intervals, and arbitrarily selected the hours of 8, 12, 4, and 8. Although during the first week difficulty was often encountered and each feeding seemed a very tiny dose, if his rules were followed patients complained neither of hunger nor of thirst. Constipation frequently occurred at first, a good sign, but it was generally promptly relieved by a simple enema, or by rhubarb or castor oil; if obstinate, coffee was added to the 8 o'clock feeding or stewed prunes or a toasted apple at 4 P. M. If the thirst was distressing, a little plain water or seltzer was allowed. If the desire for solid food in the second or third week became overpowering, Karell permitted a little white bread with salt, or with a small piece of salt herring; at 4 P. M. another piece of bread, and then once a day, in place of milk, a milk soup or a gruel. After five or six weeks of such a cure, the diet was modified according to the conditions, giving milk but three times a day and adding a dinner.

Karell cites cases from Niemeyer's clinic, but adds that his diet found less favor in Germany than in Russia and France.* Though discussed by Winternitz⁶ in 1870 and warmly recommended by Hirschfeld⁷ in the early 90's for the treatment of obesity and some years later by the same author⁸ for cardiac patients, it found little favor among the Germans. His⁹ attributes this attitude to the influence of such authoritative clinicians as Curschman and Leyden, who objected to the cure on the ground that its diuretic action was by no means certain, and that so long a period of practical starvation was too dangerous for patients with weakened hearts; while Romberg held that the reduction of fat must be accompanied by a reduc-

* Perhaps due to the Franco-Prussian war, which, just as is already evident from the present war, must have seriously curtailed the distribution of medical literature.

TABLE 1.

	Calories	Approximate ^a		Coll.
		Protein	Fat	
1 Skimmed milk, 800 c.c.....	303	27.2	2.4	41.8
2 Whole milk, 800 c.c.....	570.7	26.4	32	40
3 Whole milk, 700 c.c.) 30% cream, 100 c.c. {.....	806.9	25.6	58	39.5
4 No. 2+ lactose $\frac{5}{8}$ i (30 grms.).....	685.4	26.4	32	68.
5 No. 2+ lactose $\frac{5}{8}$ iii (90 grms.).....	915	26.4	32	124.
6 No. 2+ oatmeal $\frac{5}{8}$ i (cooked and moist.....	588.7	27.1	32.1	43.3
7 No. 2+ oatmeal $\frac{5}{8}$ iii.....	624.9	28.7	32.4	49.9
8 No. 3+ lactose $\frac{5}{8}$ i.....	921.7	25.6	58.	67.5
9 No. 3+ oatmeal $\frac{5}{8}$ i.....	825	26.4	58.1	42.8
10 No. 8+ oatmeal $\frac{5}{8}$ i.....	939.8	26.4	58.1	70.8
11 No. 3+ oatmeal $\frac{5}{8}$ iii lactose $\frac{5}{8}$ iii.....	1205.6	28	58.4	133.4
Skimmed milk, 1 oz. (30 c.c.).....	11.4	1.02	0.09	1.53
Whole milk, 1 oz. (30 c.c.).....	21.4	0.99	1.20	1.50
Cream, 30%, 1 oz. (30 c.c.).....	92.3	0.75	9.00	1.35
Lactose, 1 oz. (28.35 grms.).....	114.8	0.00	0.00	28.00
Oatmeal (cooked and moist) 1 oz. (28.35 grms.)	18.1	0.79	0.14	3.30

tion of protein in the body tissues, which in itself must lead to cardiac weakness.

In 1905, Jacob reported from the Lenhartz clinic fifty-seven cures upon fifty patients. The latter for *fifteen years* had been employing the treatment with excellent results in *chronic bronchitis and emphysema, in heart affections complicated with stasis and even with advanced decompensation, and to precede a reduction cure in the weakened heart conditions resulting from obesity*. With characteristic Teutonic thoroughness each of Jacob's patients received 200 c.c. of milk four times daily during four to eight (generally seven) consecutive days. After the first five to seven days, he added one egg at 10 A. M. and zwieback at 6 P. M.; then two eggs and some bread, and on the following day minced meat, vegetables, or rice, so that gradually, about twelve days after the beginning of the cure, his patients were upon an ordinary mixed diet. But for two to four weeks longer, the total amount of fluid taken during a day was still limited to 800 c.c. Absolute rest in bed was insisted upon until after the inauguration of the above mentioned additions to the milk diet; and even then great care and individualization were employed when the patient was first allowed to sit up, as well as after two weeks, when brief but gradually increasing exercises were permitted. According to him the cure is indicated both in chronic and in acute heart illness, but his most striking results were obtained when, in addition to cyanosis and dyspnea, marked edema and considerable collections of fluids in the serous sacs existed. The muscular weakness in the ordinary chronic valvular disease, he found, did not respond as well to the cure as that dependent upon an arteriosclerotic myocarditis. A successful issue presupposes a reasonably high pulse wave as well as a sufficient renal capacity to excrete water and salts, but a weak, scarcely palpable pulse requires the quicker aid of digitalis. Although an arteriosclerotic kidney may react to this diet, the cure is not indicated in the parenchymatous form. The essential effect of the diet plus the rest in bed is to diminish the work of the heart. Without taxing digestion or circulation, the bodily functions are for the time

being preserved, even by the very small amount of nutriment contained in the diet. The effect of the cure is frequently marvelous, especially in so promptly relieving dyspnea. Diuresis begins slowly, reaches its height on the third or sometimes not until the fourth or fifth day, and for several days continues to exceed the amount of fluid ingested. The cause of the diuresis is attributed by different observers to its action upon the kidneys, by Romberg to its poverty in salt, and by Lenhartz chiefly to the reduction in the cardiac work and the improvement in the cardiac muscle. The only contraindications according to Jacob are: (1) Such extreme myocardial degeneration, whether from deficient nutrition, coronary sclerosis, or chronic inflammatory processes that no favoring influence is able to evoke a response, just as with the use of digitalis. (2) Where the abdominal circulation with a swollen liver and ascites is in the foreground of the disturbance. Here a calomel cure is more often effective. His¹¹ states that the most reasonable explanations of the action of the cure are: (1) The limitation of the fluid (Oertel); (2) the poverty in salt (Widal and Strauss); (3) the elimination of toxins (Huchard); (4) the antitoxic (against uremia), the mechanical, and the diminishing filling of the abdomen, the last depending upon the intimate correlation between heart action and abdominal pressure (Krauss). He also points out the fact that the valuable new contribution contained in this cure was not, as its author suggests, the milk itself, but its limited amount.

Jacob's essential modifications of the astute Russian's *cure de lait* are therefore: (1) The much greater and more prolonged restriction in the amount of liquid ingested; (2) the brevity of the absolute milk cure; (3) the complete rest in bed; and the subsequent detailed and individual care when the patient is first allowed to sit up and when exercise is first prescribed; (4) the more exact routine followed.

The four charts selected from Jacob's paper (1, 2, 3, and 4) well illustrate the effect of the diet upon four different types of relatively acute cardiac insufficiency:

Case 1. (Broken compensation, aortic and mitral insufficiency of rheumatic origin.) Maid, aged 30 years. December 5, 1901, to February 13, 1902. palpitation, dyspnea, oppression, weight, vertigo. Eight

^aThese figures are based upon those furnished by C. F. Longworth's revised charts from the U. S. Department of Agriculture's Experimental Station.

CHART 1. CASE I.

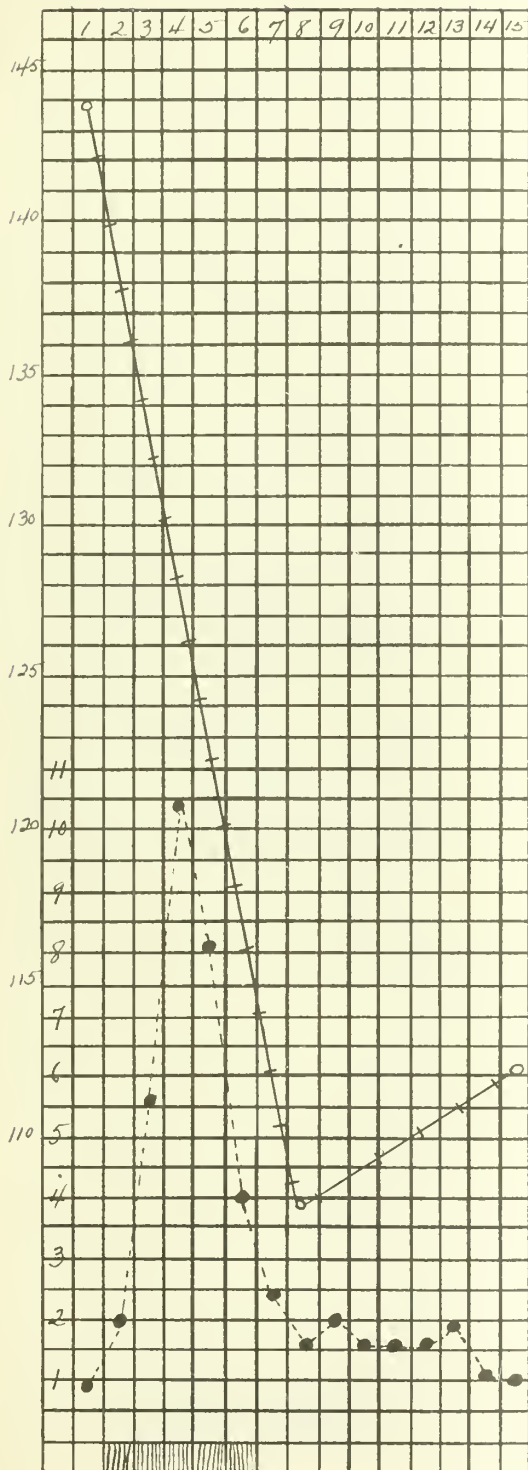
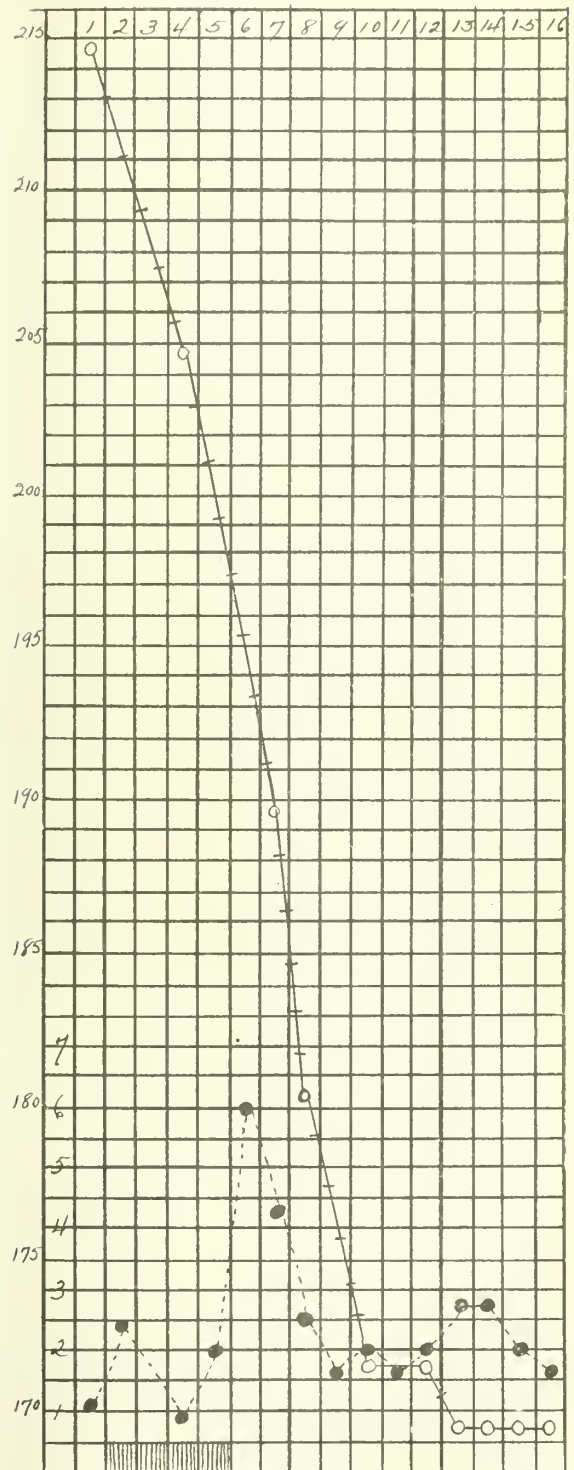


CHART 2. CASE II.

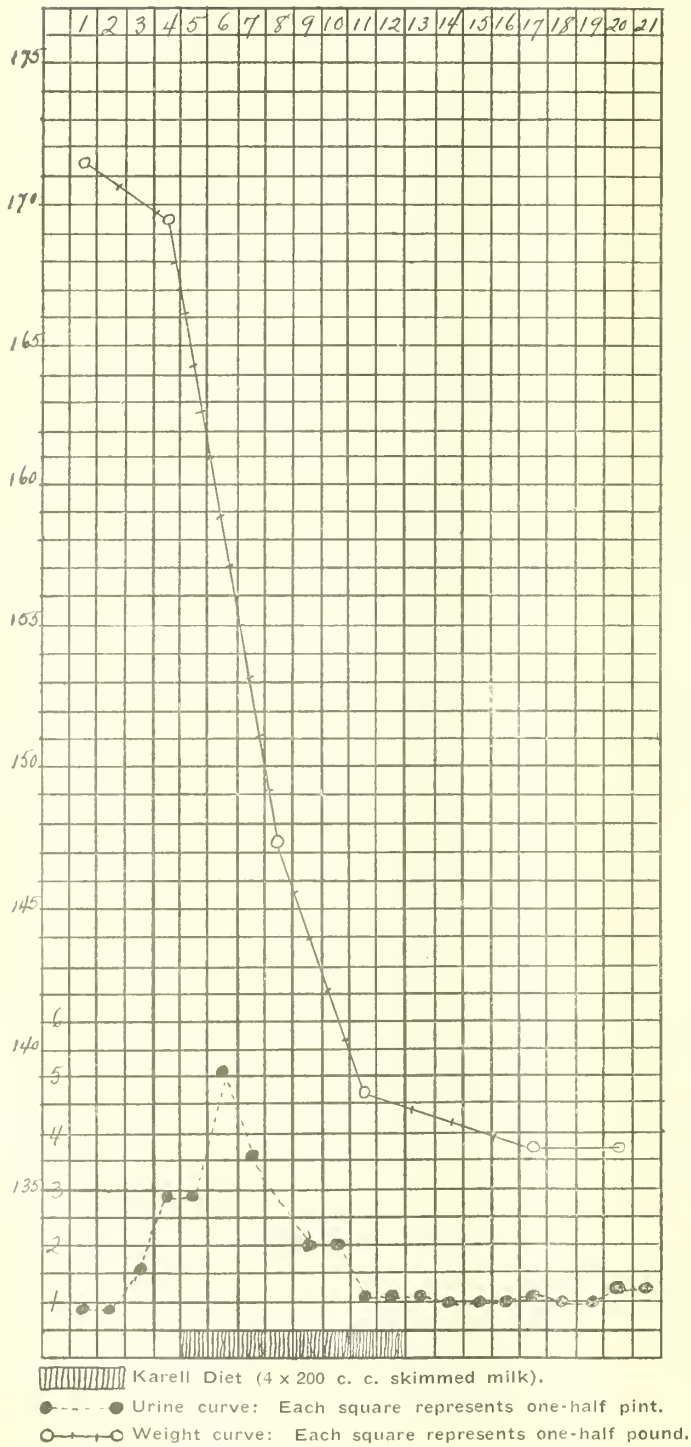


Karell diet (4 x 200 c. c. skimmed milk).

●-----● Urine curve: Each square represents one-half pint.

 Weight curve: Each square represents one pound.

CHART 3. CASE III.



CASE 4. CHART IV.

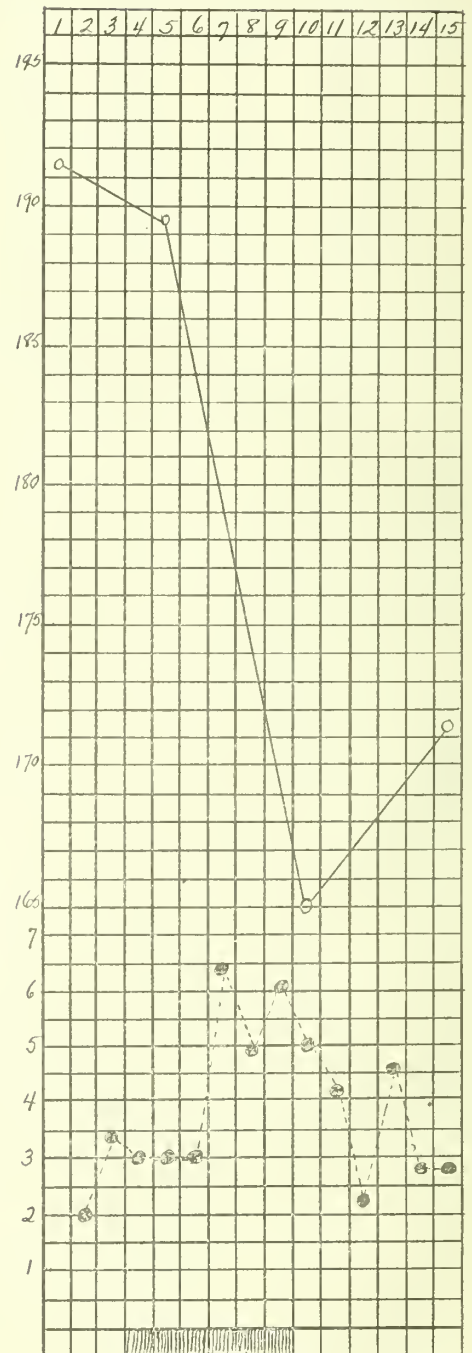
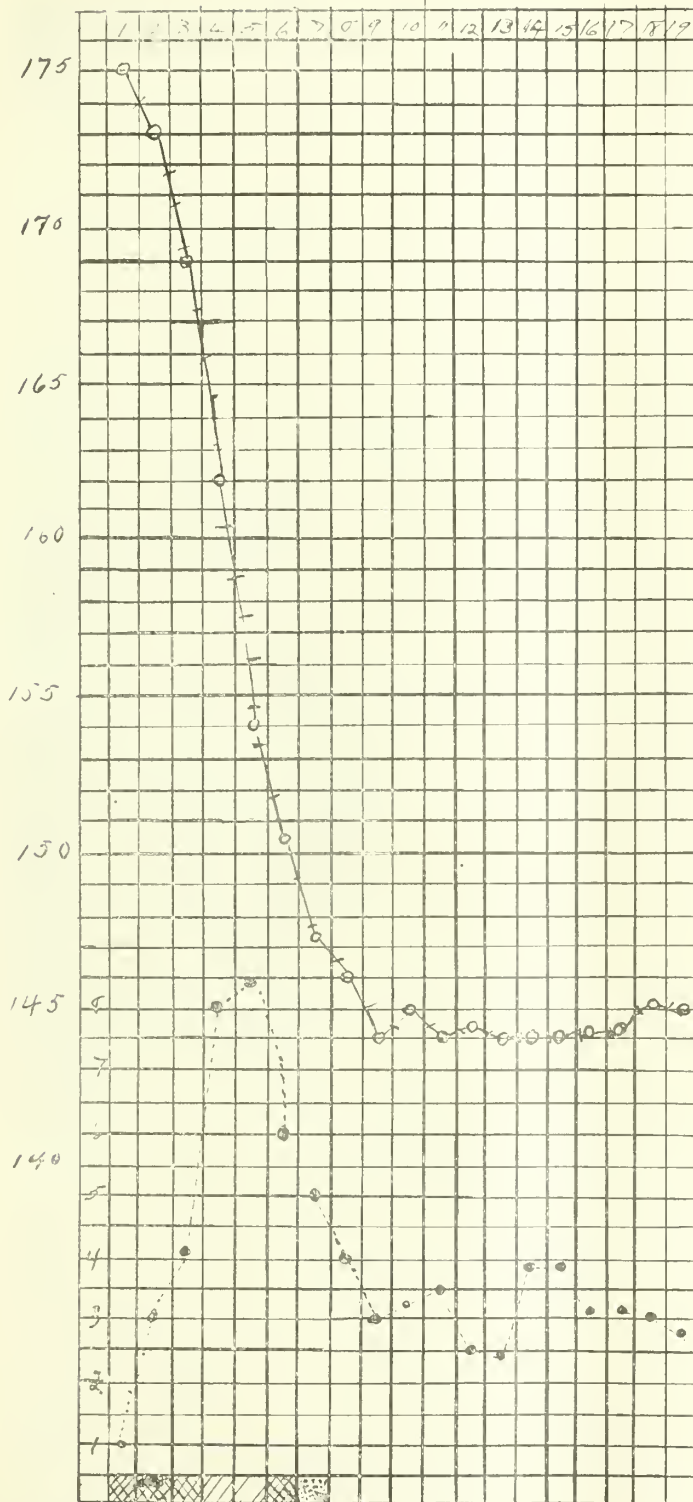


CHART 5. CASE V.



Modified Karell diet on first seven days.

First three days, 6 x 125 c. c. full milk—20 c. c. 30% cream; oatmeal or cereal, 3 x 1 ounce; lactose, 3 x 2 drams; water, 3 x 125 c. c. (with medicine).

Medication: Fochelle salts, $\frac{1}{2}$ dram in the morning. Infusion digitalis, 2 drams, three times a day.

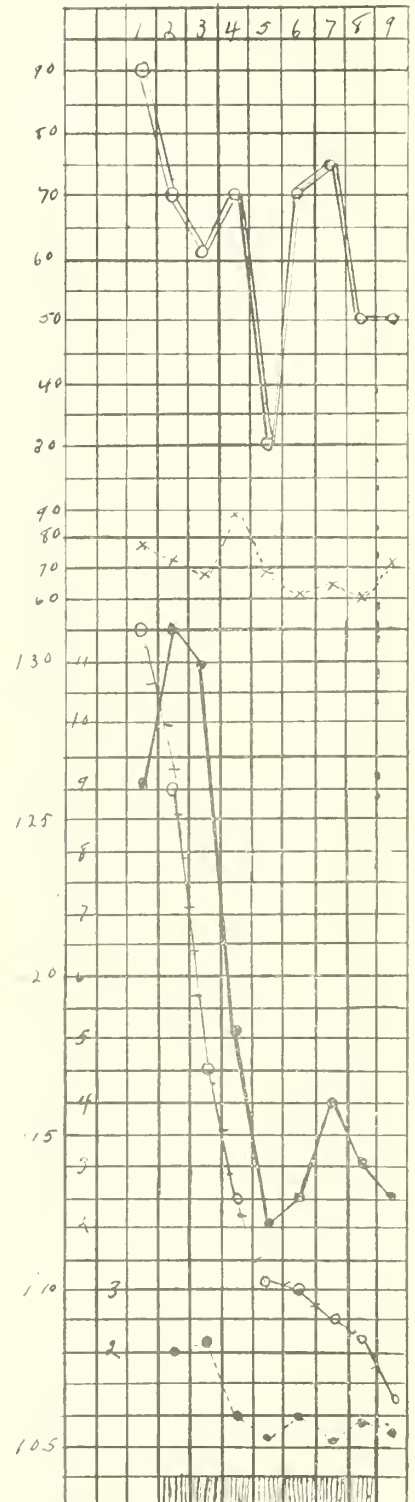
Fourth and fifth days, same as foregoing—black coffee, 100 c. c.; milk, 125 c. c.; oatmeal, 1 ounce.

Sixth day, same as foregoing—juice of one orange. Digitalis discontinued. Basham's mixture, half an ounce t. i. d.

Seventh day, same as foregoing—three slices of unsalted bread; three pats of unsalted butter.

Eighth day—mixed but salt-free diet.

CHART 6. CASE VI.



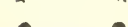
Karell diet 4 x 200 c. c. (about 2% fat); lactose one ounce.



Pulse pressure curve.

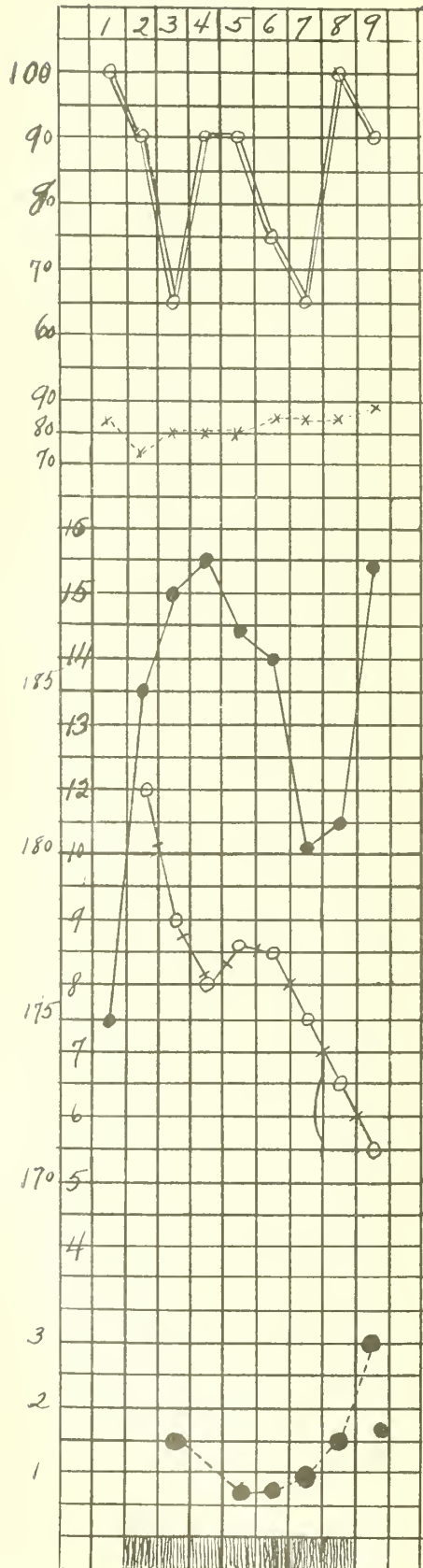


Pulse curve.



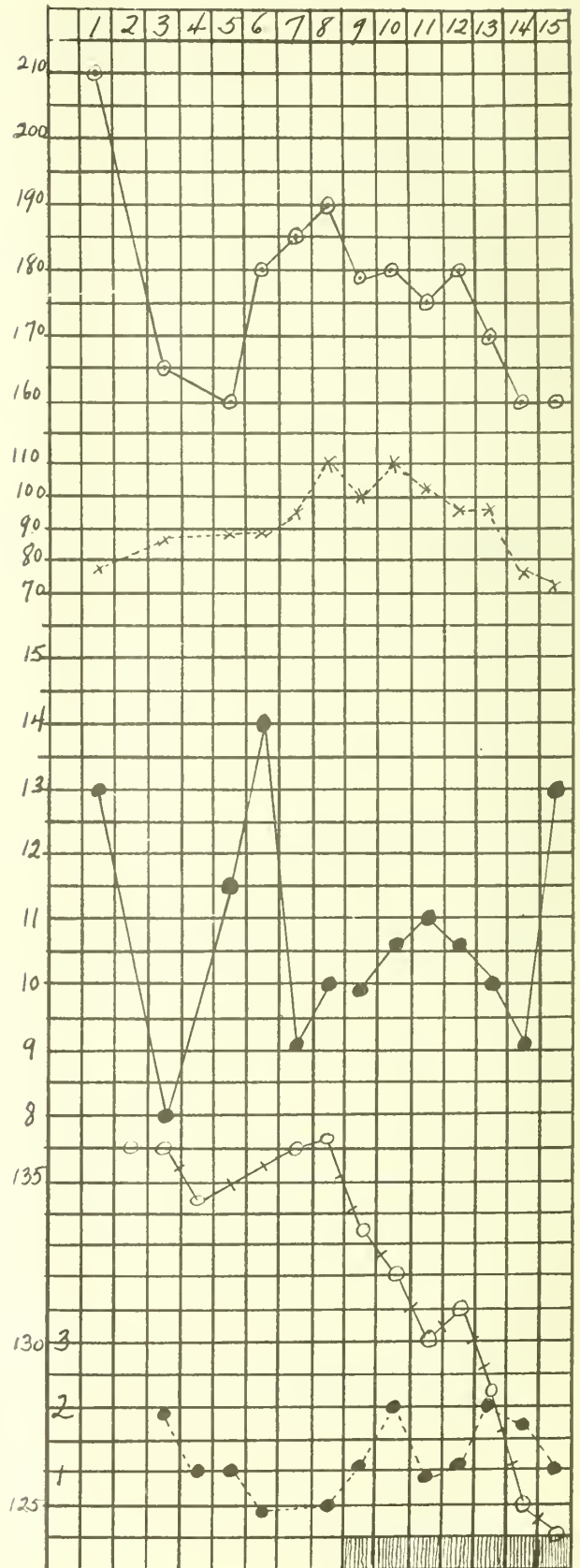
Pulse work curve (Arbeit estimated by Sahli's sphygmobolometer).

CHART 7. CASE VII.



Karell diet, 4 x 200 c. c. milk; lactose, 1 ounce.

CHART 8. CASE VIII.



Karell diet—lactose, 1 ounce.

×-----× Systolic pressure curve (not possible to estimate diastolic pressure).

days previous to admission marked increase in foregoing symptoms. Edema of the lower extremities, less of breast, general stasis, bronchitis, engorged liver, urine 300 c.c., specific gravity 1024, albumin, trace. Note the prompt and marked diuretic effect.

Case 2. (Arteriosclerosis, myocarditis, hydrops, emphysema.) Aged 65 years. December 4 to 29, 1907. Rheumatism fifteen and twenty years before, but no subsequent heart symptoms until past year. Dyspnea, feeling of oppression, swelling of the feet. During previous summer two courses of carbonic acid baths with transitory benefit. Since then persistent bronchitis. Recently effectively treated at home with digitalis. Marked general anasarca of legs, arms, chest, and scrotum. Almost immobile on account of **enormous edema**, cyanosis, restlessness, orthopnea, cough, bronchitis, emphysema, numerous rales, sticky purulent expectoration, respiration 40, rough systolic murmur over heart, especially at the base, weak, irregular pulse, thickened tortuous arteries, moderate ascites, tender liver, hand's breadth below costal margin, urine 600 c.c., specific gravity 1020, 1.5 per cent. albumin. Within two days of the beginning of the cure, dyspnea disappeared so that patient could remain in bed. All symptoms promptly improved. No albumin in urine after the thirteenth day.

Case 3. (Cardiac dilation and weakness, obesity.) Aged 20 years. October 6 to November 16, 1905. Always overweight. Beer and whiskey in excess for several years. Swollen legs, abdomen, and scrotum for three weeks. Obesity extreme, anasarca over entire body, pulse 130, engorgement of liver, urine 500 c.c. Ordinary diet with fluids limited to 1000 c.c. Digitalis one gram in three days without effect. The pulse remained frequent, small and scarcely palpable. Very slight diuresis. Striking diuretic effect of strict Karell cure.

Case 4. (Myocarditis with stasis.) Aged 29 years. March 29 to July 9, 1905. For six weeks, swelling of the legs and pains in the region of the stomach. Cyanosis, enlarged heart, faint tones, rapid feeble pulse, fluid in left pleura, engorgement of liver, ascites, edema of the legs and of the face, urine 1000 c.c., specific gravity 1022, albumin, trace. Three days before cure, patient received digitalis but without relief. Symptoms of stasis and dilatation of the heart disappeared after cure.

The very low nutritive value of Karell's diet is one factor and, according to Hirschfeld, the chief one, enabling the patient to undergo so decided a restriction in fluid over so long a period. If the strict limitation of the 4 x 200 c.c. is disregarded and extra nutrition is allowed, he warns that there is an imperative demand for more fluid. Without denying the theoretical basis, or even in the main the practical application of this objection to most modifications of the absolutely strict cure, I have recently endeavored to study at the bedside the effect of: (a) an increase in the caloric content of the diet without an appreciable increase in its bulk;* and (b) an augmentation of its diuretic action. A number of considerations have stimulated me thereto: (1) the increased appetite and improved digestion following some of the modifications as I have used them in private practice; (2) the apparently enhanced nutrition and strength of the *undernourished* patients I have so treated, especially at the end of the first week; (3) the reported effect of the cane sugar treatment advocated in England for heart disease; (4) my experience with von Noorden's modification of the old-fashioned

milk diet in nephritis, viz., the partial substitution of cream to increase the nutritive value without materially adding to the bulk, and, (5) the diuretic effect of lactose.

The modifications I have employed are *one* or *more* of the following: (1) Full milk (unskimmed); (2) strengthening full milk still further by adding cream but without increasing the bulk; (3) adding lactose in gradually increasing amounts; (4) adding unsalted and very thoroughly cooked oatmeal in gradually increasing amounts, either to the milk itself as a gruel, or as a cereal upon which the milk with or without lactose is poured. With little or no increase in bulk and only by the addition of readily digested carbohydrates and cream, the caloric value can be increased as follows:

We have tried numerous other modifications of this diet and many radically different diets in cases of cardiac insufficiency similar to those cited above and below but have failed to produce the benefit almost invariably a result of the original and simplest form, viz.: four times two hundred cubic centimeters of skimmed milk. For example, in some cases where the nephritis element was prominent and where the non-protein nitrogen of the blood was high, we confined the intake of food to vegetables with a low percentage of carbohydrate. The effect was nil in the few patients who could be persuaded to take them, and thirst, indigestion, and other discomforts resulted. Fluid deprivation is evidently quite as important if not more so than food starvation; but the absolute rest in bed must be reckoned a very essential factor.

Case 5. Male, aged 55 years, in whom toward the end of the winter, a gradually accumulating edema, ascites, and right hydrothorax had assumed such proportions as to produce alarming nocturnal orthopnea with Cheyne-Stokes respiration. His pulse was rapid, small, and irregular; blood pressure 200/150, the heart dullness reached to the mid-axillary line; there was a gallop rhythm; and his urine showed a heavy cloud of albumin and a very large number of all kinds of casts. Upon two drams of the infusion of digitalis and the diet indicated on Chart No. 5, his subjective symptoms ceased within forty-eight hours, his heart contracted several centimetres, and the gallop rhythm soon disappeared. Within the limit of my personal observations his improvement and the disappearance of edema in proportion to his usual weight and height was the most rapid and satisfactory that I have witnessed, and that despite the practical impossibility of keeping him in bed or even confined to one room. In eight days he dropped thirty-one pounds or one-fifth of his normal weight.

Case 6. (Arteriosclerosis, dilated hypertrophied heart, chronic bronchitis and emphysema, chronic nephritis.) Aged 63 years. At City or Bellevue Hospital from February 15th until May 15th. Dyspnea, cough, edema, frequent urination at night. Marked general arteriosclerosis, moderate gravity edema, extreme malnutrition, liver enlarged to umbilicus, both chests full of sonorous and sibilant rales, apex outside of mammillary line, rough systolic murmur heard at apex and base, A²+++ metallic. Remained in bed and received Karell diet, augmented by one ounce lactose and no other food, liquid, or medicine. Marked subjective improvement. Gradual disappearance of edema. Decided lessening of cough and rales. Loss of weight, but without a corresponding increase in amount of urine. The

* Evidently such additions are not indicated in the obese or in patients who without edema are overweight.

lack of correspondence may have been due to carelessness in the collection of the specimen.*

Case 7. (Arteriosclerosis, dilated hypertrophied heart, aortic, mitral, and tricuspid insufficiency, luetic and alcoholic.) Pronounced stasis, pulmonary edema, hydrops, considerable ascites, engorged and pulsating liver, marked and persistent edema of legs, thighs, scrotum, and trunk, emphysema, cyanosis, cough, pronounced dyspnea, at times paroxysmal. Wassermann positive. One week at Bellevue Hospital, treated there by tonics, digitalis, and potassium iodide, at City Hospital by salts and digitalis from April 9th to 26th, but without benefit. Karell diet with addition of one ounce of lactose but no medicine, other liquid or food from May 11th. Prompt and decided improvement in subjective symptoms, loss in weight, lessening of edema and ascites, but without corresponding increase in urine (perhaps due to faulty collection of urine).*

Case 8. Male, aged 46. Luetic endocarditis, aortic and mitral insufficiency, dilated aortic arch, hypertrophied and dilated heart, decompensation, extensive gravity edema, slight ascites, moderately engorged liver, chronic nephritis. Chancre fifteen years old, treated only locally; "rheumatism" fourteen years ago; "malaria" four years ago. For about three weeks dyspnea on exertion and even in recumbent posture, swollen feet and legs, precordial pain, marked nocturnal dyspnea. Wassermann positive. In Bellevue Hospital one week; treatment daily injections of mercury; City Hospital, April 29th; treatment, house diet, salts, fluids limited to 1000 c.c., salicylate of mercury, grain i (intramuscular), May 6th. Preliminary improvement for three days, then symptoms exaggerated and urine decreased in amount. Mercury repeated, May 10th, further decrease in urine output and subjective symptoms decidedly worse. Karell diet plus one ounce of lactose, May 12th. Gradual subjective improvement, prompt loss of weight, disappearance of ascites and edema, slight and variable diuresis, slowing of pulse, fall of systolic pressure and fall of pulse work.†

CONCLUSIONS.

1. In many cases quite as prompt and efficient diuresis, loss of weight, disappearance of edema, and marvelous subjective improvement can be obtained with such modifications in the diet suggested above as in following Jacob's strict Karell Cure.

2. These modifications, if carefully adjusted to the individual taste, digestion, and condition, do not disturb but rather aid the digestion. They also enable the physician to carry out, even in private practice, an excellent diet for the purpose in hand without arousing too great opposition.

3. They permit a slower and more agreeable transition to a normal diet; as well as

4. An opportunity to continue such a diet a

longer period or practically to renew it from time to time and that, too, more or less indefinitely whenever an increase of weight or of edema or a recurrence of dyspnea warns the physician of its expediency.

5. This diet plus the rest entailed affords a valuable introduction to any reduction cure.

6. The Karell Cure is probably an element of safety and certainly an excellent prelude to modern vigorous antisyphilitic treatment in patients with cardiovascular disorders dependent upon a luetic basis, when decompensated and especially when accompanied by edema.

7. Finally, Doctor Ordway's careful studies of the pulse pressure and of the pulse work (by Sahli's sphygmobolometer) upon the cases observed by us upon the Karell Cure or one of its modifications, show quite convincingly that one essential feature (if not the most important) is the almost invariably resulting decrease in the work of the heart as was emphasized by Lenhartz. In most instances the first addition to the diet produces an immediate increase in the cardiac work, as is well shown in the last estimation of pulse pressure and work in Charts 7 and 8 when the diet had been augmented only by one egg.

References.

1. Deutsche Klinik, iv, 2, 1907, p. 376.
2. Allbutt: Practical Treatment, Musser and Kelly, ii, 1911, p. 118.
3. Idem: Ibidem, p. 120.
4. Deutsche Klinik, iv, 2, 1907, p. 376.
5. P. Karell: St. Petersburger med. Zeitschr., viii, p. 193, 865; De la cure de lait, Archiv. gen. de med., ii, p. 513, Nov., 1866.
6. Winternitz: Ueber methodische Milch und Diät Kuren, Wiener med. Presse, 1870, p. 5, 49, etc.
7. Hirschfeld, F.: Zur diätetischen Behandlung von Herzkrankheiten, Berl. klin. Woch., 11, March 14, 1892, p. 241.
8. Idem: Ueber die Ernährung des Herzkranken, Ibidem, 33, 1896, p. 734.
9. W. His: Therapeutische Monatschr., xxvi, Jan. 1912, p. 10.
10. Jacob, L.: Ueber die Bedeutung der Karell Kur, Mittell. aus den Hamburger Staats Krankenanstalten, viii, 1908. Ueber die Bedeutung der Karellkur bei der Beseitigung schwerer Kreislaufstörung und der Behandlung der Fettsucht, Münch. med. woch., April 21, 1908, 16, p. 839; 17, p. 912 (284).
11. His: Loco citato.

PITFALLS IN THE DIAGNOSIS AND TREATMENT OF SENILE HYPERTROPHY OF THE PROSTATE. ITS CONSIDERATION FROM THE GENERAL PRACTITIONER'S STANDPOINT.

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Because of an insufficiency of time, experience and instruments, the correct diagnosis and palliative treatment of enlarged prostate by the busy general practitioner, is often unsatisfactory. In any hospital service where large numbers of this particular class of cases present themselves for relief, this fact is repeatedly brought to the attention of the urologist. These patients are poor prospective subjects for operation when they arrive at the hospital and they occasionally die before much can be done for them. Not infrequently such a case has been incorrectly diagnosed and occasionally presents a urethra traumatized by the unskillful introduction of catheters, or a bladder atonic, from continued urinary retention with a resultant kidney insufficiency which requires weeks or even months of treatment before

* Patient was discharged in June, much improved; but his weight had gradually mounted to 132½ pounds. No further attempts at a Karell diet or any modification of it were made after cessation of writer's service, June 1st.

† His improvement continued for about one month after the Karell diet (Chart No. 7). From then his weight gradually began to increase with corresponding evidence of augmenting anasarca and of decompensation. More recently under caffeine citrate these symptoms diminished. No further Karell diet has been administered since cessation of writer's service, June 1st.

‡ Following the period of Karell diet (Chart No. 8) this patient's improvement increased for a brief period and then persisted until about June 20th, when he began to fail rapidly with gradually increasing anasarca and oliguria. After the cessation of the writer's service, June 1st, none of the later attempts at prescribing diet was of assistance. His systolic blood pressure varied from 180 to 150 and his weight was 148½ pounds! on June 26th, the day before he died. The autopsy confirmed the clinical diagnosis and also disclosed edema of the lungs, hypostatic pneumonia, atheroma of the coronary arteries, and a beginning peribulbar cirrhosis of the liver plus the congestion noted above.

the case becomes an eligible surgical risk. Sometimes such a case is in a semi-comatose condition, as illustrated by the following history:

Mr. J. C., age 82. Family physician omitted final instructions before leaving for a vacation. Patient semi-comatose at intervals for forty-eight hours. Continual dribbling and overflow of urine for one week. Tongue coated, breath bad and marked general weakness.

Examination: Revealed a fairly well nourished individual with a urinary retention of 500 C.C., of bloody purulent urine. Blood pressure, 180.

Treatment: With attention to continuous bladder drainage, functional activity of the kidneys, bowels, and skin, a little general tonic, fresh air and sunshine, this individual was able to walk out of doors within two weeks. He was operated upon a few days later and able to leave the hospital on the tenth day. This would not have been possible had he not been properly prepared physically and mentally previous to entering the hospital. During this preliminary preparation such patients gain confidence in themselves and their physician which is a valuable contribution to post-operative convalescence.

Every case of frequency, dribbling, incontinence, urinary hesitancy, dysuria or hematuria, cannot be considered prostatic in origin. Very often these symptoms call for a careful general examination in addition to urinary findings. After complete rectal, urethroscopic, and cystoscopic examination, some cases will tax the diagnostic ability of the urologist and leave him with a rather vague idea of the true etiology. Explanations to the anxious patient and relatives regarding an operation in which little or no prostatic tissue was removed, might embarrass the attending physician and it behooves him to be quite positive of his findings before resorting to surgery.

Dribbling, urinary hesitancy or frequency, may be due to strictures, contracture of the vesical neck, diverticulae of the bladder or a trabeculated, and markedly contracted bladder. These generally are accompanied by cystitis which aggravates the condition. Cases of this nature have been admitted to the hospital with a diagnosis of nephritis because of pus in the urine. A case of this nature is under observation at the present time. What the man really has is a pus kidney on the right side.

Dysuria, pyuria or hematuria may be due to growths, calculi, or bacterial infection located anywhere along the urinary tract from the kidney to the external urethral orifice. Imperious urination, diurnal or nocturnal incontinence may be due to some pathologic condition in the urethra or spinal cord. An example of the latter condition may be had from the following history:

Mr. J. L.: Referred as a prospective candidate for prostatectomy. The routine examination of the bladder and rectum failed to reveal any signs of enlargement of the prostate. Patient a widower, age 45. For two years imperious urination, occasional dribbling and bed wetting. The latter symptom troubled him very much. During this period it had been impossible for him to be away from home nights because of this embarrassing symptom.

Examination: Slight diplopia. Drooping left upper eyelid with impaired vision. Pupils unequal, right one pin point. Loss of light reflex. Romberg slight.

Past History: Slightly ulcerated condition of the inner leaf of the prepuce twenty-eight years ago. Apparently a tentative diagnosis of lues but less

than three months' treatment. Feeling well and not being advised to the contrary he was married two years later. His wife's first two pregnancies resulted in miscarriages with the customary routine. Third child lived eighteen months. Wife died two and one-half years later with general paresis. In 1910 someone advised him to have a Wassermann test, which proved positive. At that time he received two injections of salvarsan, and being told this was sufficient treatment he gave the matter no further attention.

In this case the little extra time given to history and examination proved to be time well spent. This particular patient has received the routine treatment so favorably reported by Dr. B. C. Corbus of Chicago, i. e., several intravenous injections of salvarsan, followed by spinal puncture and the withdrawal of a definite amount of spinal fluid,—following which the patient is placed in the Trendelenberg position for several hours,—the theory being that this will encourage the passage of salvarsan into the subarachnoid space in sufficient quantities to kill the spirochetes. To date this case has greatly improved.

DIAGNOSTIC SUMMARY.

Very briefly I would say that the best single cardinal symptom upon which the general practitioner may clinch his diagnosis is the retention of urine in any amount over three ounces. Next in importance comes his rectal findings. Unfortunately, however, rectal findings are occasionally quite deceptive because nearly all of the obstructing portion of the prostate is intravesical and only a careful cystoscopic examination will reveal this fact. In my opinion, routine cystoscopic examination is very advantageous but should not be undertaken if certain contra-indications are present, i. e., extreme general weakness, high fever, or cardiac complications. Cases in which the above mentioned diagnostic routine has been omitted, are sometimes erroneously treated for high blood pressure, nephritis, dyspepsia, colitis or any one of the symptoms generally accompanying prostatic obstruction.

PALLIATIVE PROSTATIC TREATMENT.

Many of these patients for one or several reasons cannot be operated upon immediately and the physician must decide upon some procedure that will give relief. He must first prove to the family that he knows what he is talking about before they will listen to any operative suggestion. The patient's chief argument and that of his relatives and friends is that he is not in physical condition for operation and this is generally correct.

Usually when the physician first sees these cases they are suffering considerable pain and discomfort. It is advisable to relieve them as soon as possible and before an examination is attempted. This is best accomplished by the use of morphine either in the form of rectal suppositories or hypodermic.

Following the examination the patient should have his retention relieved, a brief bladder lavage and a permanent catheter should be left in the bladder provided this does not cause pain and discomfort. If the patient cannot tolerate a permanent catheter he should be catheterized at intervals, the frequency of which to depend on the amount of retention,—usually four to six times in twenty-four hours.

Selection of proper urethral instruments is very important. The less urethral trauma the less likelihood of urethral chills and fever.

A soft rubber catheter should be the first selection and should this not pass, a specific prostatic tip, wax catheter should be used. No time should be lost with slow acting cathartics. Many patients have considerable gastric disturbance and any drug by mouth may increase rather than decrease their troubles. A carefully given enema morning and night for the first twenty-four or forty-eight hours will often give quicker and better results.

Following this the patient is advised to use any good cathartic that he may be in the habit of taking. He should be instructed to drink freely of water to promote renal activity. Many of these cases have used tobacco in some form for many years and derive considerable contentment from its use. It is best to allow them to continue with moderation.

Under this regime, general disturbances of gastric, cardiac, renal or circulatory origin will adjust themselves without drugs; however urotropin as a urinary antiseptic and some form of general tonic are often desirable after gastric disturbances, which may have been present, have disappeared. What these cases most desire is rest, increased strength and relief from pain. When this has been accomplished they will have developed confidence in their physician and will listen to his explanation of their condition. Being convinced of the probability of repeated attacks of longer duration and greater severity, if not operated upon, they will gladly consent to surgery while strong and able to withstand it.

It is frequently true that cases improve so rapidly under the above treatment and feel so well that they refuse further attention. The physician need have no fear, for such a patient will call him during the next attack, remembering how quickly he was previously relieved. It repeatedly comes to the attention of the urologist that many of the cases have been advised against operation because of advanced age, or impaired general strength. As to their strength, practically all cases can be put in condition for operation and as for age, none are too old. I have one case at present, operated upon two years ago, who is now in his ninety-sixth year. Failure to succeed with this class of cases may generally be attributed to the abuse rather than the use of the above rules.

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ABDOMINAL CESARIAN SECTION: INDICATIONS AND TECHNIQUE.

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There is no surgical operation in which is shown more clearly the triumphs of modern surgical technique, than in abdominal cesarian section, or celio-hysterotomy. Prior to the beginning of the sixteenth century there is no authentic history showing that the operation was performed on the living woman. From this time until the development of the Porro operation in 1876, a comparatively large number of cesarian sections were performed, with a maternal mortality varying from 50 per cent. to

100 per cent. It is interesting to note that throughout this period, in the performance of the operation there was no attempt made to control hemorrhage, and while the use of sutures had been advocated by Lebas in 1769, their routine use was not adopted until the development of the Sanger operation. In 1876, Porro, in order to lower the frightful mortality resulting from hemorrhage and infection, advised the removal of the body of the uterus and suturing the stump into the lower angle of the abdominal wound. This modification had the effect of preventing leakage of the lochia into the peritoneal cavity, and reduced the mortality to less than 25 per cent.

It was left to Sanger, however, to develop a technique which would do away with the removal of the uterus, and would further lower the maternal mortality following the operation. The essential feature of the operation described by Sanger in 1882 was the accurate coaptation of the uterine wound by means of sutures. With this modification, the mortality has gradually dropped, until at present, in clean cases, it will probably average from 2 to 3 per cent.

In the early days of the Sanger operation, the indications were very strictly drawn, and were usually limited to contracted pelvis, or to pelvic tumors which rendered delivery of a living child through the parturient canal impossible. As the mortality due to the operation began to decrease, there was at first a gradual, and later a very rapid increase in the number of operations performed. This increase was due to several factors, among which may be mentioned the decrease in mortality, the spectacular nature of the operation, the popularization of major surgery, and unfortunately, but nevertheless true, the desire for larger fees in obstetrical work. There has necessarily been a pronounced change in the accepted indications, as the operation has become more popular, and we note that from pelvic deformity as the sole indication for cesarian section, several recent writers have broadened the indications to include every known obstetrical complication. In fact, some apparently well meaning obstetricians (?) have earnestly advocated the operation in women "with unfit nervous systems," to spare them the pain of normal labor. The results of the present furor will in all probability not be known, since the vast majority of sections which are being performed at present, are not reported. It seems safe to venture, however, that the end results in a very large percentage of these cases, as in any other abdominal operation done without proper indication, will be very poor.

In the thirty-six years since Sanger described his operation, thousands of sections have been performed, and from the published results it would seem possible to work out certain indications and contraindications for the operation. From observation I am inclined to believe that the poor judgment often seen in the selection of cases is more frequently due to lack of knowledge regarding the contraindications to the operation, than to any other factor.

INDICATIONS.

In considering the indications for cesarian sec-

tion I believe that the mistake is too often made, of not individualizing the case. Thus there are those who say that every dystochia due to pelvic deformity is a proper indication for cesarian section, and others who consider placenta previa as always an indication. This reasoning is utterly unscientific and gives poor surgical results. Cesarian section is only indicated, in any given case, if this operation will give a lower maternal and fetal mortality, and an equal or decreased morbidity, than other methods of delivery.

Maternal mortality.—The mortality of the modern operation, if performed on a clean case, in a modern hospital, should average 2 per cent to 3 per cent. This mortality is rapidly increased to 50 per cent. or over, if the operation is done on infected cases; cases which have been subjected to a long labor; those in which repeated vaginal examinations have been made; cases on whom attempts have been made to deliver, per vagina; cases in which the membranes have been ruptured for many hours, and in certain other cases which I will consider in the discussion of "Contraindications."

Fetal mortality.—Unquestionably, no other means of delivery offers such good results, so far as the infant is concerned. If the child is in good condition at the beginning of the operation—and a cesarian section is rarely indicated unless this is so—practically 100 per cent. of the babies should be delivered alive. The infant mortality during the first year is lower in babies delivered by cesarian section, than in those delivered by other operative means.

Maternal morbidity.—This phase is rarely considered in the selection of a method of delivery. If cesarian section is performed upon properly selected cases, under proper conditions, there is a rapid recovery, involution of the uterus is good, and the patient, if a primipara, is left with a good pelvic diaphragm and normal pelvic organs. On the other hand, we have all, at some time in our professional life, had reason to regret having performed a high forceps, or a version, which was difficult, convalescence was tedious, and the ultimate result of which was an additional patient for the gynecologist. It is just such cases that make true the saying that the gynecologist lives on the mistakes of the obstetrician. In clean cases, my cesarian sections have made more rapid recoveries, and have been in better condition afterward, than cases delivered vaginally by difficult forceps operations, or versions.

If cesarian section is performed indiscriminately, on the other hand, while the patient may not die, she will almost surely become infected, her low grade pelvic infection will result in adhesions, and these and other sequelae will likely make of her a chronic invalid, unless pelvic surgery gives some relief.

Fetal morbidity.—Babies delivered by cesarian section are usually normal, healthy babies, uninjured by the operation of delivery. We are all familiar with the results of difficult deliveries by forceps, or version and extraction. The frequency of injuries to the brain, as a result of these in-

strumental deliveries, is only recently receiving the attention which it deserves. Many of these babies are delivered alive, apparently in good condition, but a large percentage die within a few days, often as a result of a cerebral hemorrhage. It has been suggested, but has not been proven, that many of the mentally unfit are so as a result of such injuries to the brain. It is certain that many permanent nerve injuries, fractures of the skull and extremities, and many deformities, can be attributed to difficult deliveries through the natural passages.

Remote effects to be considered.—The most important remote effect as a result of cesarian section, is the possibility of the rupture of the uterus in a future pregnancy or labor. This is a real danger. While it is claimed by some investigators that only about 2 per cent. of all cases rupture in future labors, if allowed to deliver spontaneously, yet from observation I believe that this figure is grossly underestimated. Other observers have attempted to classify the cases as those in which the puerperium was febrile, and the remainder as non-febrile, attempting to draw the conclusion that if the convalescence was non-febrile, it must necessarily follow that the uterine incision healed by first intention, and a firm scar resulted. This is a fallacy. There is no positive assurance of obtaining perfect wound healing, regardless of either the nature of the puerperium, or the method of suturing. The uterine scar is an unknown factor in all cases. From a careful consideration of the literature and personal observation of several cases of ruptured uterus following cesarian section, I am convinced that the dictum, "Once a cesarian, always a cesarian," rests upon sound reasoning and represents good obstetrical judgment. An exception might be made in the case of a multipara, where the section was not done for disproportion, and in whom dilatation was proceeding rapidly, but even in such cases it is better to save the uterine muscle from all unnecessary strain by applying forceps after dilatation is complete. The probability of a future cesarian section, with its pre-requisites, hospital environment and capable attendants, must be considered in deciding upon the operation in any given case.

I. OBSTRUCTION TO LABOR.

Contracted pelves.—This will always be the chief indication for cesarian section. If the true conjugate is less than 6 centimeters, no problem exists, since it is impossible to extract even the mutilated fetus through such a small pelvis, without causing grave and perhaps fatal injuries to the mother. If the true conjugate is less than $7\frac{1}{2}$ centimeters, the case is still easy to dispose of, either craniotomy or cesarian section being indicated, depending upon the condition of mother and child. A normal sized baby cannot be delivered through a pelvis of this size. It is in those pelves having a true conjugate of more than $7\frac{1}{2}$ centimeters, that our greatest problems arise. These are the so-called border-line cases. It is generally recognized that from 70 to 80 per cent. of contracted pelves, including those in which radical interference is indicated, will permit spontaneous delivery of the case, if treated expectantly. I

therefore believe that all cases coming within this classification, if this is the first labor, should be given the test of labor, rigidly preserving the conditions for cesarian section, should an indication arise. If after a reasonable trial, the head is still above the inlet, with no progress, I prefer cesarian section to its competing operations, forceps or version and extraction. On the other hand, if the case has been neglected, the patient repeatedly examined, attempts made to deliver vaginally, and so forth, cesarian section would be strictly contra-indicated.

Pelvic tumors.—A word of caution regarding this indication is advisable. While it is true that as a rule pregnancy stimulates the growth of most pelvic tumors, it is equally true that there is a marked tendency towards the elevation of the tumor out of the pelvis. Thus it is often noted, particularly in fibroids, which at the beginning of the pregnancy may be situated low in the pelvis, threatening marked obstruction to delivery, at term are frequently found lying above the brim, and causing no marked effect upon labor. If cesarian section is indicated, it is usually best to do a Porro operation, if a fibroid uterus is responsible for the obstruction.

Stenosis of the cervix or vagina.—By this I do not mean the ordinary rigid cervix often found in primiparae, but rather a cervix which, usually as a result of previous lacerations, is mainly composed of scar tissue. Scar tissue will not dilate, but will tear. If artificial dilatation is required, the danger of extension of lacerations is pronounced, and fatal hemorrhage may take place. I believe that there are cases in which, after several trials, a previous laceration into the rectum has been successfully repaired, an elective cesarian section may be indicated in order to prevent a repetition of the disaster.

Ventral suspension and fixation of the uterus.—We are still observing the effects resulting from the many ventral fixations performed several years ago. Although it was at first believed that the so-called ventral suspension would not interfere with pregnancy and labor, subsequent observation has shown that serious dystochia may result from any operation in which the mobility of the uterus is interfered with. On account of the marked posterior displacement of the cervix in these cases, thus rendering manual dilatation very difficult or impossible, and also on account of the danger of a possible rupture of the uterus, cesarian section is to be thought of.

Relatively large fetus.—It must always be borne in mind that a disproportion may exist even though the pelvic measurements are normal, and that a cesarian section may be indicated under these conditions. None of the methods for the estimation of the relative size of the head as compared with the pelvic inlet are entirely satisfactory, and for this reason I prefer the test of labor as an index as to whether or not the case may be terminated per vias naturales, or by cesarian section.

II. HEMORRHAGE, ANTE-PARTUM OR INTRA-PARTUM.

Placenta previa.—In partial placenta previa, con-

trol of the hemorrhage by the insertion of a metreurynter, or by a Braxton-Hicks version, gives very satisfactory results so far as the mothers are concerned, and a fairly low fetal mortality. In central placenta previa, on the other hand, from 50 per cent. to 100 per cent. of the infants are lost, and about 10 per cent. of the mothers, if delivery is attempted per vagina. I do not wish to infer that every case of central placenta previa should be delivered by cesarian section. In private practice, without the hospital environment, Braxton-Hicks version, or the introduction of a Voorhees bag, are to be preferred. Under proper conditions, if the operation is done after the first hemorrhage, and not after the patient is exsanguinated, cesarian section should give not more than a 5 per cent. maternal mortality, and less than 5 per cent. fetal mortality. The danger of extensive lacerations, with fatal hemorrhage days after delivery, should not be lost sight of in cases delivered vaginally. To recapitulate, an indication for cesarian section will arise in central placenta previa, with the patient at full term and in good condition, child living, and hospital environment available. The requirement that the cervix be undilated and rigid, as proposed by some authors, seems unnecessary, since we practically never see a well-dilated cervix in central placenta previa, with the patient in good condition.

Premature separation of the placenta.—In this complication, unless the separation is slight, there is usually an urgent indication to deliver. The child is usually dead, or dying. If the hemorrhage is severe, the mother's condition growing worse, and the cervix undilated and rigid to such an extent that it would prove a bar to rapid delivery from below, cesarian section is indicated. In those cases which are seen early, and in which the child is not yet dead, cesarian section offers practically the only chance of delivering a living child.

III. PRE-ECLAMPTIC TOXEMIA, AND ECLAMPSIA.

There has recently been some agitation in favor of performing cesarian section in certain cases of pre-eclamptic toxemia. While it is true that if the toxemia does not clear up under treatment, there is grave danger that permanent degenerative changes in the kidneys and liver are likely to result, yet in the majority of such cases labor can be so satisfactorily induced by the introduction of a bag, that I have as a rule followed this procedure. There are rare cases, however, with very high blood pressure, amaurosis, epigastric pain, and suppression of urine, in which a rapidly performed cesarian section will give vastly better results than induction of labor.

It has been said that eclamptics do poorly after abdominal cesarian section, but our results have not borne this out. I do not believe that eclampsia, per se, is an indication for cesarian section, but I do believe that every eclamptic should be delivered at once, in the manner which will subject the patient to the shortest anesthetic, the least shock, will reduce trauma and lacerations to a minimum, and will give the best results to both mother and child. The children of eclamptic mothers tolerate delivery by forceps or

TABLE OF AUTHOR'S CASES.

Case No.	Previous Labors	Indications	Length of This Labor	Number of Vaginal Examinations	End Result Mother	Result infant
1	0	Eclampsia. Rigid, long cervix	0	1	Good	Good
2	0	Generally contracted pelvis	24 hours	1	Good	Good
3	0	Central placenta previa.	0	2	Good	Good
4	1 All normal	Central placenta previa, rigid, scar-tissue cervix	2 hours	2	Good	Stillborn
5	0	Severe pre-eclamptic toxemia	0	1	Good	Good
6	1 High forceps	Generally contracted pelvis; central placenta previa	4 hours	2	Good	Good
7	3 Each was 3 or 4 days in length, & forceps	Previous obstetrical history; sterilization	6 hours	0	Good	Good
8	0	Generally contracted pelvis	12 hours	0	Good	Good
9	0	Flat pelvis	24 hours	2	Good	Good
10	4 Three breech, one forceps, all stillborn	Previous history (masculine pelvis)	0	0	Good	Good
11	0 Chondrodystrophic	Chondrodystrophic dwarf pelvis	0	0	Good	Good
12	1 High forceps	Stenosis of cervix (scar tissue)	14 hours	0	Good	Stillborn (Premature)
13	1 Forceps; stillborn	Old third degree laceration, repaired after three operations	0	0	Good	Good
14	2 One forceps; one Caesarean section	Previous Caesarean section (Case 15)	0	0	Good	Good
15	0	Eclampsia at 6½ mos.; rigid, long, cervix; neglected case	?	0	Good	Stillborn (Premature)
16	1 Caesarean section	Previous Caesarean Sec. (Case 15)	0	0	Good	Good
17	1 Forceps	Central placenta previa	0	1	Good	Good
18	0	Masculine pelvis	24 hours	2	Good	Good
19	1 Forceps; stillborn	Generally contracted pelvis	12 hours	1	Good	Good
20	1 Spontaneous	Disproportion; flat rachitic pelvis	12 hours	2	Good	Good
21	0	Eclampsia; generally contracted pelvis	0	1	Good	Good
22	1 Caesarean section	Previous Caesarean Sec. (Case 21)	0	0	Good	Good
23	0	Disproportion; hard labor with no engagement	18 hours	1	Good	Good
24	1 Caesarean section	Previous Caesarean Sec. (Case 23)	0	0	Good	Good
25	0	Disproportion; hard labor especial desire for living child	36 hours	3	Died	Acute dil. stomach
26	1 High forceps; stillborn	Flat rachitic pelvis	12 hours	1	Good	Good
27	0	Ventral fixation	18 hours	1	Good	Good
28	0	Flat rachitic pelvis	36 hours	1	Good	Good
29	0	Eclampsia at 7 months; rigid, long cervix	0	1	Good	Good
30	1 Low forceps	Absolute obstruction due to fibroid of vagina	6 hours	2	Good	Good
31	1 Five months; sepsis	Generally contracted pelvis; vaginal fistula fol. sepsis	0	0	Good	Good
32	0	Central placenta previa	0	1	Good	Good
33	0	Scolio-rachitic dwarf	0	0	Good	Good
34	0	Illegitimate pregnancy; moron; for sterilization	0	0	Good	Good
35	0	Generally contracted pelvis. No engagement	18 hours	1	Slow Phlegmasia	Good
36	1 History denied	Absolute obstruction due to 7-pound uterine fibroid	6 hours	1	Died	Good
37	0	High assimilation pelvis; no engagement	24 hours	2	Peritonitis	Good
38	0	Masculine pelvis; no engagement	24 hours	3	Good	Good
39	0	Generally contracted, funnel-shaped pelvis	6 hours	0	Good	Good
40	0	Premature separation of placenta, 8 months	0	0	Good	Good
41	1 Forceps; stillborn	Traumatic anomaly of sacrum preventing engagement	12 hours	1	Good	Good
42	0	Flat, generally contracted pelvis; face presenting	34 hours	?	Good	Good
43	1 Forceps; stillborn	Funnel-shaped pelvis	12 hours	Many	Good	Good
44	0	Eclampsia; 7½ mos.; rigid, long cervix	0	2	Good	Died in 3 days neglect
45	2 One forceps; one Caesarean, reason ?	Previous Caesarean section; tenderness over uterus	6	0	Good	Good

version very badly. If the patient is in labor, the cervix soft and dilated or dilatable, and the pelvis is normal, a manual dilatation followed by version or forceps will frequently give satisfactory results. In the presence of a rigid, non-dilated and non-effaced cervix, particularly in a primipara, I believe that superior results will follow the abdominal operation.

CONTRAINDICATIONS AND CONDITIONS.

Cesarian section is a primary operation, never a secondary one. It should not be attempted upon cases in which operative interference by forceps, version or induction of labor, have been attempted. In such cases the mortality will vary between 10 per cent. and 50 per cent. Frequent vaginal examinations, especially by an attendant whose technique is questionable, raise the mortality of the operation. This is especially true of cases in which the membranes have been ruptured for some time prior to operation. Slemmons observed that whenever the membranes rup-

tured prematurely; and the labor is prolonged, especially if repeated vaginal examinations are made, infection of the uterine cavity is likely to occur. I do not believe that one or two vaginal examinations, if sterile gloves are used, and the patient properly prepared for the examination, contraindicate a section. I do believe, however, that every case in labor should be considered as a possible cesarian section, and by the substitution of external and rectal examinations for vaginals, the danger of infection reduced. Prolonged labor is a contraindication to cesarian section. This is particularly true if the patient shows evidence of infection, or exhaustion—i. e., an elevation of temperature and pulse. The child should be alive, except in cases of absolute contraction of the pelvis. It is folly to subject the mother to the dangers of a laparotomy, for the sake of a premature or dying infant.

TECHNIQUE.

Time of operation.—It is commonly stated that

an elective cesarian section should be done a few days before the beginning of labor. I prefer to wait until labor has started, and the pains are regular. This is advisable for two reasons: First, because the difficulty of estimating the actual period of the pregnancy is recognized by all, and the delivery of a premature baby by elective cesarian section is embarrassing, to say the least; and second, because I have found that the cases in which the operation is performed during labor, have a smoother convalescence than those operated upon prior to the beginning of labor.

Pre-operative treatment.—The administration of castor oil prior to operation has seemed to increase the amount of gas after cesarian, and copious or frequently repeated enemata have resulted in temporary, but very troublesome, paralytic ileus. A low soap suds enema, not to exceed one quart in amount, is given two hours before operation, if possible.

Anaesthetic.—I have preferred ether as the anesthetic in my cases. Nitrous oxide-oxygen is very unsatisfactory on account of the impossibility of obtaining complete relaxation. Chloroform, in my opinion, has no place in obstetrics, on account of the great tendency towards degenerative changes in the liver and kidneys, which so often follows the use of the drug.

Operation.—One cubic centimeter of "Aseptic Ergot" is given intra-muscularly as the administration of the anesthetic is commenced, to guard against uterine atony, and to control hemorrhage. I prefer the so-called high incision, as described by Davis of the New York Lying-in Hospital. This incision begins just above the umbilicus, and is carried upward, through the left rectus, for about ten centimeters (four inches). On account of the thinned-out abdominal wall, care is necessary in order to avoid entering the peritoneal cavity unexpectedly, and possibly cutting into a loop of the gut. The high incision has many advantages. It minimizes the danger of adhesions between the uterus and the abdominal wall, since after the uterus is sutured and returned to the abdominal cavity, the uterine scar and the abdominal scar are not in apposition, and hence adhesions are not likely to result. There is, I believe, less danger of hernia in the thigh, than in the low type.

I do not eventrate the uterus, but open it in situ. The old practice of eventrating the uterus undoubtedly, by peritoneal traction, predisposed to surgical shock; resulted in larger scars, more liable to hernia; and favored infection, through exposure of a larger field of operation. As a rule, one ordinary-sized pack is placed above the upper angle of the incision, to keep the gut out of the field. The uterus is pushed into the median line, a short incision, preferably down to the membranes but not through them, is made with the knife, and this is extended with the scissors until the uterine incision corresponds in length and position with the incision through the abdominal wall. The bleeding is not excessive. Attempts to control hemorrhage by sponging will be futile, and the practice of applying an elastic ligature around the cervix,

or having an assistant compress the uterine arteries, will only delay the operation without in any way accomplishing the desired end. I believe that such measures may do harm by predisposing towards secondary relaxation of the uterus. If the placenta presents beneath the uterine incision, no attention should be paid to it, and the operation proceeded with as though it were not there.

After the uterus is opened it is good technique to pass the hand through the uterine incision, and sweep it rapidly around between the membranes and the uterine wall, completely separating membranes and placenta. Unless this is done, there is often considerable delay in extracting the membranes. The operator then grasps a fetal foot, and extracts, using the same technique as in breech extraction. The child is handed to an assistant, who clamps and cuts the cord, and turns it over to the person charged with its resuscitation. As soon as the child is delivered, the operator draws the uterus up to the abdominal wall and manually extracts the placenta and membranes, assuring himself, by inspection of the uterine cavity, that no membranes remain. In order to facilitate the suturing, I place my first two sutures at the upper and lower angles of the uterine wound, respectively, and use them as "guys."

The uterus is closed with No. 2 chromic catgut interrupted sutures. Care is taken that the sutures are passed down to, but not through the endometrium, in order to prevent possible infection traveling from the uterine cavity directly into the abdomen. The peritoneum of the uterus is whipped over the line of interrupted sutures, using a continuous of No. 1 plain catgut. During the closure of the uterus there is apt to be some relaxation, with oozing, and to correct this I inject one cubic centimeter of pituitary extract directly into the uterine muscle.

On account of the extreme thinning-out of the tissues of the anterior abdominal wall, more careful closure than usual will be required, in order to prevent hernia. I close in three layers, using No. 1 plain catgut, continuous, for the peritoneum; No. 2 chromic catgut, interrupted, for muscle and fascia; and metal clips for the skin.

POST-OPERATIVE TREATMENT.

Posture.—The patient is received in a warm bed, and kept in the dorsal position until well recovered from the anesthetic. She is then placed in the Fowler position, which is maintained for 48 to 72 hours, or longer in the presence of fever. She is allowed to turn from side to side while in this position. After the bowels move, the case should be treated as though she were a normal obstetric case. I personally have my cases lifted into the wheel-chair on the fourth or fifth day, and allow them to remain up until tired. This is repeated each day. The patient is allowed to take a few steps on the tenth or twelfth day.

Drop method.—I begin proctoclysis as soon as the patient is returned from the operating room, using tap water rather than normal salt. This is given continuously for from 48 to 72 hours.

Dict.—The patient is given small amounts of

warm water, or warm tea, as soon as she asks for them. No ice or iced drinks are given. Liquid diet is continued until the bowels move; light diet then follows for 36 to 48 hours, when regular diet is ordered.

Pain.—I prefer heroin to any other narcotic after cesarian section, having in mind the nursing infant, and possible effect which the various narcotics may have. The first dose is not given until at least six hours after operation, first, because it is probable that there is very little pain during this period; and secondly, on account of an early narcotic masking dangerous post-operative signs. I give from 1/24 to 1/12 of a grain, the total dose for 24 hours not exceeding 3/12ths of a grain.

Gastro-intestinal tract.—A low soap suds enema, not to exceed one quart in amount, is given at 4 or 5 o'clock on the afternoon following operation. At midnight one ounce of castor oil is given, to be followed in six or seven hours by another low enema. This is followed by the routine administration of extract of cascara, ten grains three times a day.

Gas often gives trouble after cesarian section. The introduction of six ounces of warm glycerin into the upper rectum, or sigmoid, has always given me satisfactory results. Peristaltine, a glucoside derived from cascara, may be given hypodermically, in a dose of one ampoule every six hours, with extremely satisfactory results.

Contraction of the uterus.—There is apt to be poor contraction of the uterus for the first three or four days, and I have found that my results are better if this tendency is counteracted by the administration of pituitary extract, in a dose of one ampoule four times a day, for the first five days.

Nursing the baby.—The baby is put to the breast in twelve hours after delivery, and from this time follows the routine nursing schedule.

RESULTS IN AUTHOR'S SERIES.

I am to-day reporting 45 consecutive cesarian sections performed in private practice, and on my service at the Los Angeles County Hospital. Many of the details are shown in the accompanying "Table of Author's Cases." A summary of certain phases may be apropos.

Table Summarizing Various Indications.

Indication	No. of Cases
Contracted Pelvis.....	18
Eclampsia	5
(With contracted pelvis 1)	
Central placenta previa.....	5
(With contracted pelvis 1)	
Previous Caesarean section.....	5
Disproportion (pelvis apparently normal)....	2
Obstruction, fibroids.....	2
Bad obstetrical history.....	2
(Masculine pelvis 1)	
Pre-eclampsia toxemia.....	1
Ventral fixation causing dystochia.....	1
Stenosis of the cervix.....	1
Premature separation of placenta.....	1
For sterilization.....	1
To prevent destruction of perineum, torn into rectum during previous labor, and repaired after three trials.....	1

Number of Vaginal Examinations.	
Number of Examinations	Number of Cases
0	17
1	15
2	9
3	2
4	1
? (Many)	1

Length of Labor.	
Number of hours in labor	Number of Cases
0	19
0 to 6	7
6 to 12	6
12 to 18	4
18 to 24	5
24 to 30	0
30 to 36	3
?	1

Causes of Maternal Deaths.

Case 25—Acute dilatation of the stomach. Died four days after operation. Diagnosis confirmed by autopsy.

Case 36—General peritonitis. There were extensive adhesions between the fibroid uterus and the small intestine, which were separated at operation. There was evidently a perforation of the gut at the site of one of these adhesions. Death 8 days after operation.

Causes of Fetal Deaths.

Case 4—Diagnosis of fetal death made before operation but Cesarean section chosen on account of the profuse hemorrhage following even a vaginal examination. (Rigid cervix.)

Case 12—Premature, stillborn. This cervix was composed of scar tissue.

Case 15—Premature, stillborn. Very severe eclampsia, with long, rigid cervix.

Case 44—Premature, died in three days, as a result of the neglect of the attendant.

Humpstone, in an article on the end results of cesarian section, stated "that the evolution of the cesarian family is not at all an obstetric fad, the results of the glamour of operative surgery, but rather a permanent, scientific step in advance, based on sound surgical principles, applied to the fundamental principle of obstetrics." I believe that this is true. If cesarian section is regarded as a primary operation, and is performed upon clean cases in a hospital environment, the results will be good. On the other hand, if the operation is performed without a strict regard for the necessary conditions, often as the easy way out of any obstetrical difficult, disaster will follow.

"DRUGS IN THEIR LOCAL APPLICATION TO EAR, NOSE AND THROAT TREATMENT."

By HARVARD Y. McNAUGHT, M. D., San Francisco.

A paper on this subject, must necessarily confine itself largely to generalities, as a detailed consideration of the many agents employed would require more time than would be allowed. As a foreword it may be said that these remarks in the main are intended for the general practitioner, though we as specialists are not entirely beyond reproach in the misuse of drugs in our work. In the early days of our specialty before much was known concerning the anatomy of these parts, and the etiology and pathology of ear, nose and throat diseases, treatment was necessarily directed more

to the relief of symptoms, than to the permanent cure of disease. Our knowledge of the nature of the diseases of these parts, is today, not far from complete, and so our methods of treatment have, or should have changed.

In brief, we know what the pioneers did not know; what few general practitioners seem to know; what many of the old regime specialists have never learned, that the treatment of ear, nose and throat diseases is mainly surgical, that drugs locally applied have a very limited sphere of usefulness. More than that, drug treatment of most conditions under consideration, not only is useless, but in so far as it prevents proper treatment by surgery is, in many cases, a menace to the life of the patient. That this is no figment of the imagination can be shown by a case seen by us in consultation. The patient had a beautiful clear cut case of intrinsic cancer of the larynx almost surely curable by operation. He was being treated by the attending specialist by sprays and other intra-laryngeal applications, given apparently to relieve hoarseness which was present. The lesson in this case is obvious.

To have some orderly basis on which to discuss such a wide subject, we have classified drugs used locally, according to the effect expected to be produced:

1. Sedatives.
2. Stimulants.
3. Destructives.
4. Astringent.
5. Protective.
6. Anesthetic.
7. Cleansing.
8. Antiseptic.

1. *Sedatives*.—In this group we have in mind the relief of symptoms of inflammation. This fails of accomplishment, by the direct application to the mucous membrane of the nose, of most drugs now commonly used. Of these menthol seems most effective. Other stereoptenes such as camphor have a similar action, as have some of the essential oils. In the pharynx and naso-pharynx, also we have found all local applications for sedative purposes, to be useless in acute conditions. Orthoform, which properly comes under the anesthetic group, has possibly a small field of actio usefulness in painful conditions of the larynx. Menthol in oily solutions we have found most useful. *It should never be used in this manner in the nose of an infant, as a number of deaths have been recorded following its administration.*

In beginning acute middle ear conditions we sometimes get a sedative effect, and also occasionally abort the disease, by keeping the canal filled with glycerine. The effect is probably due to osmosis through the membrana tympani, thus relieving the serous distention of the middle ear. In acute inflammatory conditions of the external ear aluminum acetate solution has some sedative value. How much of this is due its astringent qualities, and how much to the wet gauze pack, is problematical. In acute suppurative conditions of the middle ear, no drug that we are familiar with has any value.

Various drugs are used in the attempt to re-

lieve acute congestion of these regions. Among the most commonly used are the colloid silver preparations, such as argyrol, silvol, etc. The first mistake made is the manner of application. We believe that the use of cotton wound applicators (or brushes as used in the larynx) is wrong, and only increases the trouble. If such drugs were of use, the method of application should be by sprays, syringe, or gargling. The second mistake is in using them at all, for any effect you could get from them you could get from the infinitely cheaper silver nitrate, in its various strengths.

An almost universal belief exists in the value of gargles of various solutions of drugs. In our opinion the drug contents of these gargles do not influence the situation at all. Any effect produced is the result of hydro-therapy. Plain hot water, as hot as can be borne, is as effective as any gargle can be. The application of drugs to an inflamed larynx by means of steam inhalations, is another abused method. Why use the drugs, when any effects produced are from the moist heat?

2. *Stimulants*.—Here we can undoubtedly influence new tissue formation. We have a number of drugs in use, the best of which is silver nitrate. This must be used in very weak solutions, not more than 1 per cent., or we will destroy the delicate new granulations. Compound tincture of benzoin, scarlet red, also, may have to be used in turn. In general, however, there is a small field for this class of drugs. Given the need for stimulation, we should first direct our attention to the local conditions, such as cleanliness and proper drainage, and, secondly, if packing is being used, to seeing that it is not too tight, and mechanically preventing the formation of granulations. Having seen to these things, providing there be no underlying constitutional states militating against the patient, stimulants will not be often needed.

3. *Destructive*.—These fill a well indicated place in therapy. Exuberant granulations may have to be reduced; small bleeding areas on the septum obliterated. For this purpose we use effectively Silver Nitrate in bead, Glacial Acetic Acid, or Chromic Acid. We must deplore the use of such substances for the reduction of turbinates or new growths. Turbinates which need reducing, had better be attended to surgically. New growths can be removed, better surgically and at the same time specimens procured for microscopical examination.

4. *Astringents*.—There are a considerable number of drugs which come under this head. Among these may be mentioned Zinc Sulphate, Alum, Tannin. These are astringent in a sense, and widely used in gargles and sprays where, as mentioned, the drug effect is negligible. Moreover in the nose and throat as ordinarily used, the medicament cannot be kept in contact with areas to be treated, long enough to be of any effect. The two to be mentioned last, the most important and useful, are adrenalin and cocaine. Where we wish a prolonged shrinkage of the mucous membrane of the nose, we can accomplish it by a careful use of cocaine, with slight adrenalin addition.

One must prescribe a weak solution, and it must be used by spray every hour. This is important, as the astringent effect will not last longer, and we have a succeeding engorgement which defeats our purpose, unless it is applied with regularity. The occasional case of idiosyncrasy to adrenalin will, of course, be found.

5. *Protective*.—These have also a small place in therapy. In acute coryzas an oily spray may be used. Menthol may be added for its anesthetic effect. The protective quality rests with the oil used and any other added drugs are so many useless additions. We consider a protective seldom called for, and then plain oil fulfills all the indications. Most of the oils in use are too light, and are washed away by the secretions in a short time. We favor liquid vaseline as being the heaviest oil, and therefore being the most protective. In acute larynx cases, intra-tracheal injections of this with 2 per cent. menthol added, protects the raw surfaces from the air and makes the patient comfortable for several hours. Such oily sprays as commonly prescribed for *chronic* nose and throat conditions are a menace to the patient's welfare, inasmuch as they accomplish nothing, and deprive the patient of proper treatment.

6. *Anesthetic*.—These need only a brief mention. Our main reliance for surface anesthesia is cocaine. Novocaine, stovaine, apothesine, have a very slow and slight effect on mucous membranes by surface application. Orthoform has a slight anesthetic effect, and has been used in the larynx though in conditions painful enough to require anesthetic, it is not of much use. We possess, however, in superior laryngeal nerve injections, and amputation of the epiglottis, effectual means of overcoming extreme pain in this region on deglutition. Regarding the use of cocaine we would like to add our approval of its use in saturation in adrenalin. In many hundreds of cases where we have so used it, not the slightest constitutional effect has been seen. On the other hand, there are recorded many cases of poisoning, by the use of dilute solutions, especially where they have been kept in contact with the mucous membranes for some time. Quinine and urea hydrochloride is an unsatisfactory anesthetic for our use, due first to slowness of action in dilute solutions, secondly, fibrinous exudate and edema, third, danger of sloughing and tetanus. It gives good anesthesia, but possesses the disadvantages mentioned. Novocaine, $\frac{1}{2}$ per cent., in potassium sulphate 2.5 per cent. solution has been used by us for some years, with perfect safety and satisfaction. It is about one-eighth as toxic as cocaine, and used in above formula is unirritating. Lately apothesine, made in this country, has been used. It is similar in action to novocaine, but has been found weaker, and one has to wait longer for complete effect.

7. *Cleansing*.—These agents are limited to certain alkalis such as soda, which tend to liquefy the mucous. It was put into this classification in order that attention might be called to the widespread abuse of cleansing agents. We are aware

of only two conditions in the nose where a wash is indicated. One of these is ozena, and the other to cleanse the nose of secretions and detritus for a short time following certain intra-nasal operations. As commonly prescribed by general practitioners, and many specialists, it is worse than useless. Unless a solution is isotonic with the blood serum, there occurs either an exosmosis, or an endosmosis, between the fluid and the cells of the mucous membrane. In the former case, we have a dehydrating, and drying effect which is irritating, and in the latter there is a waterlogging. Many cases are seen with boggy mucous membranes in the nose. In these cases inquiry elicits the fact that a nasal wash or spray, possibly prescribed years ago, is still being used. The boggy condition disappears on stopping the wash. The most crying evil, however, is the use of washes in sinus infections, when the only treatment should be operative. Many a chronic case of sinus infection is religiously washing the nose daily with some alkaline antiseptic, prescribed by some medical man who should know better. After intra-nasal operations, the use of a wash for a few days may possibly be permitted. Even here apart from the danger to the middle ear, healing can be delayed by any but a brief use of these agents. We strongly condemn the use of lavage in an operated sinus, believing that nothing is accomplished that drainage and aeration will not do. Moreover we believe it to be a means of prolonging pus discharge from such cavities.

In the ear a wash may be used in acute cases, remembering that plain water will prolong the discharge. Owing to the astringent effect of alcohol on granulation tissue, an ear wash should always contain a large and increasing proportion of this drug.

Too many chronic suppurative ear cases are having washes prescribed for them instead of the needed operation. Washes then have a place in treatment if it is realized that they are never curative.

8. *Antiseptic*.—The name of this class is legion. Most of them cannot be used in sufficient strength to be of any use as a bactericide. The nature of most of the diseases with which we deal, as well as anatomical conditions, render them unavailing. Antiseptic gargles, as well as antiseptic nasal washes, are misnomers. We cannot reach the tonsil crypts, nor the ethmoid cells, and if we could, the strength of the solution is too weak and the period of contact too brief to be of use. In limited spaces such as streptococcic ulcer, pure carbolic is effective, as are iodine, silver nitrate, etc., in Vincent's Angina.

In conclusion we would reiterate that drugs play a very small and unimportant part in the modern treatment of ear, nose and throat diseases, and that their use, except for some very definite purpose, may, by depriving the patient of needed operative treatment, result in much harm.

Try to ease the mind of the patient, encourage him to look forward to being cured, even if thou art not thyself convinced of it, for this will greatly strengthen his nature.

When the patient does not follow thine injunctions or his servants and people do not promptly obey thine instructions or show thee the proper respect, it were better to give up the treatment.

Fix the fee of thy patient when his disease is in its ascendancy and most severe, for as soon as he is cured he will forget what service thou hast rendered.

The more thou demandest for thy service, the higher thou fixest the fee for thy treatment, the greater will they appear in the eyes of the people. Thine art will be looked upon as insignificant by those whom thou treatest for nothing.

Do not visit thy patient too often and do not remain with him too long, unless the treatment of the disease demands it, for it is seeing the doctor anew that gives joy to the patient.

Too large a practice confuses the judgment of the physician and causes him to give mistaken directions.

Excessive activity and effort diminishes the power of the physician and weakens his spirit, for he must constantly think and be concerned about each patient, hopeful for his recovery, and pray for him as though he were "one of his kin, that is near to him" (Lev. xxi, 2). Isaac Judaeus, 830-932 A. D.

Book Reviews

1917 Collected Papers of the Mayo Clinic, Rochester, Minn. Octavo of 866 pages, 331 illustrations. Philadelphia and London: W. B. Saunders Company, 1918. Cloth, \$6.50 net.

Again we welcome a Mayo volume. The clear, lucid style of not only the Mayo papers, but of the collaborators, is a joy to the reader. The personal element, the clear technic, even to details (as in the intravenous injections) are eagerly read, knowing that they are the results of vast and critical experience. The alimentary canal papers are somewhat limited as to space. On the other hand, the experimental laboratory comes in for a good share of the pages. Surgery of the spleen forms quite a complete picture. The chapters on trench foot, the war's influence on medicine, and medical service in the United States are interesting. Syphilis covers several chapters, and, notwithstanding the mass of literature already before us on this subject, we read again, with benefit, of the treatment being used in the Mayo clinics. The volume of 1917 papers is worthy of a place beside its predecessors.

M. I. J.

Surgical Clinics of Chicago. Volume 2, Number 4 (August 1918). Octavo of 202 pages, 110 illustrations. Philadelphia and London: W. B. Saunders Company, 1918. Published bi-monthly. Price per year: Paper, \$10.00; cloth, \$14.00.

Contents.—L. L. McArthur: Tumor of the pituitary gland. Kellogg Speed: Transarticular cap-

sulorrhaphy on the knee. A. D. Bevan: Hemangioma of the scalp. Skin grafting: burn of chest repaired by Thiersch grafts. Sarcoma of the lower jaw. Carcinoma of larynx. Carl Beck: Partial rhinoplasty. Treatment of Phlegmon of hands and fingers. D. N. Eisendrath: Acute Abdomen. W. J. Woolston: Malignant disease of cervical stump after supravaginal hysterectomy. E. L. Moorhead; Clinic. G. L. McWhorter: Surgical treatment of needles in the hand. Isolated and complete dislocation of fifth carpometacarpal joint. Harry Culver: Pyelonephritis. L. E. Schmidt: Operative treatment of urethral fistula. Technical errors in the operative treatment of urethral stricture. H. L. Kretschmer: Fulguration treatment of tumors of the bladder. Fulguration treatment of urethral caruncle. Wm. Hessert: Surgical clinic on fractures. G. D. J. Griffin: General discussion of fractures.

A Manual of Otology by Gorham Bacon, assisted by Truman Laurance Saunders. 7th edition. 566 pp. New York and Philadelphia: Lea & Febiger, 1918. Price, \$3.00.

This well known textbook will, in its last edition, make new friends among readers of otology. The authors have spared no effort to bring their information up to date. In order to emphasize the importance of the operative treatment in adenoid growths, enlarged tonsils and suppurative diseases of the labyrinth, the chapters on these subjects have been entirely rewritten and enlarged. A chapter on the submucous resection of the nasal septum has been included so as to make the reader entirely comfortable in the specialty. It might have been proper here to mention Ballenger's swivel knife as a convenient and safe instrument. The educational influence of the war in medicine is shown by the addition of a new chapter giving the details of U. S. requirements for testing the ears of aviation candidates. The text gives all through the book an impression of reliability by its terse, matter-of-fact language. Short case histories keep one at all times in close touch with the patients in private practice, hospital clinics and in the literature. The directions given and the numerous prescriptions are dependable. Over 200 illustrations, largely from photographs, make the instruction given understood beyond all doubt. The student and the general practitioner will find Bacon's Otology a handy book for study and reference.

H. B. C.

Headaches and Eye Disorders of Nasal Origin.

By Dr. Greenfield Sluder. 272 pp. St. Louis: Mosby, 1918.

The author has become convinced that the nasal factors are more frequently the cause of "asthenopia," than systemic disorders. He does not so much deal with cases where the relation between a sinus suppuration present and the patient's symptoms is evident, as with those where suppuration has ceased (operated or not) or where none has been found; but where the symptoms still continue. This class comprises three groups: (1) vacuum frontal headaches with eye symptoms only; (2) spheno-palatine ganglion neurosis; (3) hyperplastic edema of the postethmoid-sphenoid area. In about 200 pages, beautifully illustrated and easily read, the author painstakingly describes how the close anatomical relationship of passing nerves exposes them to the occasionally vicious contents of the nasal accessory sinuses causing the peripheral symptoms, of which "the lower half headache" is the more prominent, and how these disorders are diagnosed and treated. About 50 pages of case histories further illuminate his conclusions. The

results of the treatment appear to incline to extremes of success or failure, indicating that there may still be considerable diagnostic difficulty in these cases.

Dr. Sluder has given us a review of his rich clinical observations and the importance he gives to the formative and rarefying bone changes as a cause of these annoying symptoms is bound to remain fundamental. H. B. C.

Locomotor Ataxia. By Wm. J. M. A. Maloney, New York: Appleton, 1918.

Without the least hesitation one can say that Dr. Maloney has given us the best monograph in the English language on locomotor ataxia. Nor lies the virtue of the book in the elucidation of this subject alone; its careful reading and rereading gives one a new insight of the vast scope of neurosyphilis; and more than that, a renewed knowledge of the fundamental anatomy and physiology of the nervous system. There is so much to commend in the different chapters that one is at a loss to know where to begin. Those devoted to the mental states in tabes and their treatment are perhaps the most valuable because they tend to break down the pessimistic views that are held by too many doctors in regard to this disease. We at large are only too prone to employ drugs in medicine and relegate other and important adjuvants to an obscure and neglected place. We leave too many openings for the devices of different cults, because diseases are treated rather than human beings. Some years ago, starting with the well-known fact that a tabetic, no matter how many other symptoms he may have, is rarely ataxic if he has an optic atrophy, and that an ataxic if he becomes blind often regains his equilibrium, Dr. Maloney elaborated an improvement of the Frankel method which will permit most tabetics not only to throw away their sticks but even walk in the dark. In this way he supplements his treatment of the mental state, with a definite physical help. While these observations alone would commend the work, there are many other chapters that invite and hold one's interest. It is a splendidly well-written monograph, which makes its reading a pleasure. M. B. L.

Correspondence

INTERESTING COMMENTS FROM PARIS.

Headquarters American Red Cross,
Paris, Oct. 18.

To the Editor:—I am sending you an outline of Cannon's address on Shock, delivered to-day before the Biological Society of Paris, followed by two hours of discussion which developed nothing new. It would interest an American Society of Medicine to attend one medical meeting here. When a man ceases to be interesting in his discussion everyone begins a whispered conversation with his neighbor while the poor devil speaking keeps on till he has presented all of his carefully prepared notes. There seems to be no time limit to discussion. The Congressional Record method is an improvement as is our custom of sharply limiting it as to time.

I am having sent to you copies of "War Medicine," published by our office. You may find things of interest to abstract. The war has developed a wonderful advance in the understanding of wound bacteriology and healing and San Franciscans will be glad to know that Capt. Jablons, formerly pathologist of the St. Francis Hospital, has done great work on anaerobic bacteria and the study of strains of streptococci. He teaches wound bacteriology at the Central Laboratories, where intensive courses are given to large groups of medical men on all subjects of vital interest in their work. We have reason to be proud too of

the work done in the field and hospitals and in the Red Cross by all our California men and women. One meets them everywhere and the record of their work will bear favorable comparison to the highest standards in every field they are in. It would be hard to mention all the names and it isn't necessary. The whole story will be told soon.

Sincerely yours,

PHILIP KING BROWN,
Asst. Medical Advisor to A. R. C. in
France.

SAN FRANCISCO HOSPITAL COLLOQUIA.

To the Editor:—In reply to your communication of November 18th, asking for a statement of the function of the Stanford Colloquia and their history so that you might take up the matter editorially in the Journal, I am sending you the following for your consideration:

Somewhat over a year ago one of the surgeons of the S. F. Polyclinic suggested the holding of Colloquia in the Surgical Amphitheatre of the S. F. Hospital on Friday mornings, this being at that time the morning set aside for the S. F. Polyclinic to do its surgery. Accordingly notices were sent to the medical profession of San Francisco inviting them to attend. From the very beginning the effort was attended with great success, and then under the able direction of Dr. Ryfkogel who took charge of the Colloquia shortly after they had commenced, they became even more popular and the opportunity thus given was eagerly seized by the profession generally to attend a surgical clinic where they could not only watch operations, but also take part in the discussions which followed all operations or ask any questions during the operations. That this was beginning to fill a long-felt want in this community for something of this kind there was no doubt, as was attested by the very large attendance at each meeting. Then on July 1st of this year the S. F. Hospital, which heretofore was divided into five services among as many teaching institutions was entirely changed so that it was and now is divided into two services—Stanford University Medical School and the University of California. This was done in the interest of greater efficiency for the S. F. Hospital, thanks to Dr. Brodrick, superintendent.

Under the new order of things the Colloquia would now have been discontinued but for the recognition of their value by Doctors Ophuls and Rixford of Stanford Medical School. After some informal discussions a permanent Joint Committee was appointed, consisting of Doctors Wm. Ophuls, chairman; Emmet Rixford, Harold P. Hill, H. A. L. Ryfkogel, C. E. Welty, S. Nicholas Jacobs, secretary.

It was finally decided that the Colloquia at the S. F. Hospital be continued and start at 9 a. m. Surgery and Surgical Specialties, including Gynecology and Obstetrics, on Thursday mornings, and Medicine and Medical Specialties on Fridays.

A number of lectures were selected for these Colloquia, from the various branches of Surgery and Medicine, each lecturer to have charge of the program on the day set aside for him. Notices were sent to all physicians of San Francisco, Alameda, San Mateo, Santa Clara, Marin, Napa and Contra Costa counties inviting them to attend.

Printed programs are sent in advance to those who register with Dr. Ophuls, Dean of Stanford University Medical School, and pay a fee of one dollar per quarter to cover postage, printing, etc., although all physicians are welcome whether they register to receive programs or not.

Commencing with October 3rd, two Surgical and

two Medical Colloquia were held which were very successful and then came the influenza epidemic with the closing of the S. F. Hospital to all except influenza patients and the consequent indefinite postponement of the Colloquia.

It is now hoped that the hospital will soon be running normally again and it is expected to resume the Colloquia about the middle of January. Notices will again be sent out to all physicians.

It is intended as time goes on to gradually extend the scope of these Colloquia so as to more fully meet the need for post-graduate instruction in this community and especially for those physicians out of town who might find it to their advantage to come and spend Thursday and Friday mornings at the S. F. Hospital.

Very truly yours,

S. NICHOLAS JACOBS,
Secretary.

San Francisco.

County Societies

ALAMEDA COUNTY.

Reorganization of the Oakland health department, including appointment of a Health Director and a shake-up in City Food and Market Inspectors, is being planned in conferences between Commissioner F. F. Morse and a committee from the Civil Service Commission.

Should he not be called into National Service, Dr. Daniel Crosby, acting Health Officer, will become Health Director under the new plan, with power of dictator of the entire department under Commissioner F. F. Morse.

The program of the regular meeting of the Alameda County Medical Association held December 16, 1918, included:

- I. "What have we learned from the Epidemic of Influenza"? Dr. H. S. Buteau.
- II. A Review of the Recent Epidemic of Pneumonia. Dr. Albert H. Rowe.

At the close of the program a buffet supper was served.

The clinics at the Oakland College of Medicine, which were discontinued during the influenza epidemic, are again conducted as usual.

Capt. H. P. Nottage, chief of the section of head surgery at Camp Cody, New Mexico, has been acting as commanding officer of the "Old Base" Hospital during the epidemic of the influenza.

Capt. Edward von Adelung spent Thanksgiving with his family in Oakland.

LOS ANGELES COUNTY.

Dr. Lewis B. Morton, who left for France last Christmas, in the Naval Base Hospital Unit No. 3 organized by Dr. Rea Smith, is now doing special work at the casualty clearing station at the front, according to Mrs. Lewis B. Morton, recording secretary of the Friday Morning Club.

Lieut. Kvello is Wanted on U. S. Business.

Dr. William Duffield, president of the Los Angeles County Medical Association, announced Nov. 12, that he held a telegram of great importance to First Lieut. Olaf Andrew Kvello, of the medical corps, and asked for help in finding the officer. The telegram is at Dr. Duffield's office, 516 Auditorium Building.

Personals.

Dr. Lulu Hunt Peters, ex-chairman public health committee, California Federation of Women's Clubs, returned Nov. 17 and is now awaiting orders to go to Serbia in a unit of ten women doctors to be sent over by the American Women's Hospital Committee for reconstructive purposes.

In Argonne.

Dr. Morgan Prime Lee, medical detachment 363d infantry, writes that they were in battle nine consecutive days and nights. Shells came uncomfortably near the dressing station which was on a fairly well protected hillside. There were many casualties among men and horses close by. Any one who wants to know what downright terror is should undergo shell fire for a while. One is contending with a force so unequal and so powerful for injury.

L. A. Doctor at Head of Medical Camp.

Dr. Albert Moore has been placed in command of the Medical Officers' Training Camp at Fort Riley, Kansas, during Lieutenant-Colonel K. W. Kinard's absence. Dr. Moore entered service from Los Angeles as captain.

Memorial for Dr. Elizabeth Follansbee.

A bed will be endowed in the Children's Hospital in her name. Mrs. W. W. Stilson has invited all the friends of the departed pioneer woman physician to a meeting at her home, 2731½ West Ninth street, Sunday, December 8, 3 p. m., where club women of the city propose to establish a memorial in honor of Dr. Elizabeth Follansbee.

Influenza News.

Except business essential to health and sustenance the Association wants a compulsory "flu" mask ordinance and a general ban upon public gatherings, including the closing of department stores, dry goods houses, cafeterias, and all places of business, except grocery stores, meat markets and drug stores, as well as upon theaters, churches and schools.

The L. A. health officials placed at the disposal of the people anti-flu vaccine. Free clinics or depots, for the free inoculation of applicants were opened at the following places: City department of health, No. 119 Normal Hill Center, hrs. 9 a. m. to 12 m.; Belle White Memorial Hospital, No. 312 North Boyle street, from 1:30 to 3:30 p. m.; University of So. California Clinic, Trinity and Washington streets, 12 to 3:10 p. m. Dr. Pascoe of the health department is in charge of the vaccination.

First aid and home nursing classes were reopened Nov. 25 at Red Cross Headquarters, Tenth and Main streets. The demand during the influenza epidemic proved the civilian value of nurse aides training.

Dr. Lulu Hunt Peters advocates the use of masks and a double one for those who do not believe in germs, as they are the ones who sputter and spatter the most.

Dr. L. M. Powers, health chief of Los Angeles, plans to have the city council appropriate \$10,000 for an automobile patrol to enforce quarantine regulations in the homes and thus fight the influenza epidemic.

Friday Morning Club Urges Separate Quarters at County Hospital.

The club has sent resolutions to the Board of Supervisors asking that separate quarters be established for colored nurses, and commended the white nurses for remaining at the hospital during the epidemic with separate resolutions to the nurses themselves.

Graves Dispensary Resumes Business.

The daily clinics, which had been suspended during the influenza epidemic, resumed work on Nov. 18, at the Selwyn Emmett Graves Memorial Dispensary, on the University of California property, 737 No. Broadway. This dispensary treats without charge over 30,000 people a year and daily clinics are maintained in medicine, surgery and practically all of the specialties. Dr. Geo. H. Kress, the dean of the college, is in charge of the clinic.

ORANGE COUNTY.

On account of the influenza epidemic the Orange County Medical Association held no meeting during the month of November.

The regular December meeting was held in the Santa Ana Library, with fair attendance.

The program for the evening consisted of a symposium on influenza, under the following headings: History, Dr. J. L. Maroon, Santa Ana; diagnosis, Dr. H. A. Johnston, Anaheim; bacteriology, Dr. J. A. Jackson, Anaheim; nose and throat complications, Dr. Tralle, Santa Ana, and the nervous complications, by Dr. R. A. Cushman, Santa Ana. Others were on the program but were unable to be present.

The discussion lasted until late in the evening and was most interesting. Several of the members present told of their varied experiences during the epidemic. The papers by Dr. Maroon and Dr. Jackson were especially well received.

Several points were brought out in the discussion and were assented to by the majority of the members present, some of these being:

(A)—that it is highly probable that we will have the disease, in epidemic form, with us for months to come.

(B)—that the use of vaccines has a value only in the prophylaxis and that serums and sero-bacterines may be of slight value in the treatment.

(C)—that the use of anti-pyretics should be discouraged.

(D)—that it is probable that the epidemic will take its toll from the population independent of the quarantine.

(E)—that the chief value of quarantine may be ultimately that the rapidity of the spread of the epidemic may be slowed down and the virulence modified, with better opportunity for nursing and care.

(F)—that there can be no successful quarantine until the bacteriology of the disease is on a settled basis.

(G)—that the reason why the health boards and civic organizations have been formulating such varied and different rules and regulations in the endeavor to control the epidemic is because of our lack of definite knowledge of the bacteriology of the disease.

Word has been received, from France, that Major Winters, of Santa Ana, has received a shell wound in the ankle.

Captain W. H. Wickett, of Anaheim, who is in France cables that he expects to be home shortly.

Dr. C. D. Ball of Santa Ana, while stepping from his auto to pick up a pair of gloves was struck by a passing auto and besides receiving many bruises suffered a dislocation at the right hip joint. He is recovering slowly.

Miss Frieda Janss, daughter of Dr. J. Janss of Anaheim, is slowing recovering from a severe attack of influenza-pneumonia.

Notices

NO MORE PHYSICIANS TO BE COMMISSIONED IN THE MEDICAL CORPS.

At ten o'clock on the morning of Nov. 11th, the War Department discontinued the commissioning of physicians in the Medical Corps.

This condition, in all probability, is permanent and no further consideration will be given applicants for a commission in the Medical Corps until further notice.

Department of Industrial Medicine

It is the intention to make this department of particular interest and value. In it will be discussed practical problems of social medicine, industrial accident practice, insurance fees, and State medicine. It is requested that doctors, especially in smaller towns and the country, write us in detail as to their experiences with insurance companies, their ideas of proper fees, and suggestions for discussion and improvement in this field. These letters will not be published if so requested.

RESULTS OF GROWTH OF INDUSTRIAL MEDICINE.

Big business appreciates already, to a surprising degree, the economic benefits to be derived from expansion of industrial medicine and surgery. A like appreciation is rapidly permeating the entire world of business and industry. It pays to take care of the worker. Preventive medicine pays in industry. These are established facts. It is just as important and profitable to maintain the human machine at full efficiency, as it is to maintain any other machine at full efficiency.

The tendency is already manifest which takes medical practice among workers away from the private practitioner and centralizes it in institutions. Says B. B. Lyons, superintendent of the Delaware Hospital in Wilmington, Del.¹: "How is the physician and surgeon to be compensated (for this loss of 'business')? To what extent will existing hospital facilities be used in this work? How will the present hospitals be affected by the inevitable increase of company hospitals organized by industrial concerns to care for their own injured? In order to answer these questions wisely, the hospital executive must study the problems of industrial welfare, and keep pace with the great spirit of the times which is transforming self-interest into service. Every hospital has a service to sell to the industrial concerns in its neighborhood. Ability to make this service attractive and market it to good advantage will largely govern the success of many hospitals in the future, especially those located in or near industrial sections. The hospital superintendent who possesses vision, courage and the practical common sense to transmute his vision into fact will be able to seize this opportunity for service and with it benefit all in his community."

Lyons points out further that industrial medicine and surgery often prove the key to knotty problems between capital and labor. Among the fruits of industrial medicine are increased production, decreased cost, increased health, happiness and contentment of workers, and often actual increase of wages. As by-products may be mentioned increased loyalty of workers, heightened industrial morale, and decreased labor turnover.

It is worth the while of hospital executives, even in small rural hospitals, to consider these things and ponder them well. The hospital, both urban and rural, is the coming center of organized medicine. Many new and unsuspected possibilities are awaiting discovery. If the hospital on a private basis is to survive and fill its full social function, it must be alive to the trend of industrial and organized medicine. This is a field as yet barely entered. Let the hospital aggressively seek out new avenues of service in industry and business.

WORKMEN'S COMPENSATION LAWS.*

Compensation legislation in the United States has developed in the last few years. The first

¹ Modern Hospital, XI, 4, 299.

* See Bulletin U. S. Bureau of Labor Statistics, 240, May, 1918.

permanent laws were enacted in 1911 by Washington, Kansas and Wisconsin. Since then a total of 37 states and 3 territories have followed suit, in addition to the federal compensation acts of 1908 and 1916. Workmen's compensation for loss of working time has thus become a well established principle and is an economic fact with which every physician, directly or indirectly, is concerned. The compensation states comprehend about 77 per cent. of the persons gainfully employed in the United States, including practically all of the so-called industrial states.

Compensation laws are of three types, according to the degree to which employers are forced to accept their provisions. Under a compulsory law, employers are forced to accept the act and pay the compensations specified. Usually in this type, the act is equally compulsory for the employee, as in Arizona, for example, he may have the option of suing for damages. Under an elective compensation act, the employer may accept or reject the act, but is usually penalized for rejection by abrogation of the usual common-law defenses. The employee has a similar right of rejection. No compensation law covers all occupations. Exemptions are usually represented by agriculture, domestic service, casual employment, and sometimes by non-hazardous employments. In some states, such exempted employments may come under the compensation act by voluntary election by the employer or joint election by employer and employees. Under these conditions, the employer is not penalized for not electing the act. To this extent such a compensation act is termed a voluntary act.

Further, an act may be elective as to private but compulsory as to public employments. Also, compensation acts are described as compulsory or optional, according to whether or not they require some form of insurance. Of the 40 compensation laws, 12 are compulsory and 28 elective as to compensation provisions, while 35 are compulsory and 5 elective as to insurance provisions. Great variation in methods appears in the 35 states which require insurance. The state itself may act as insurance carrier, requiring all employers under the act to avail themselves of it. Again, the state may entirely abstain from acting as a carrier, and require insurance in private, mutual or stock companies, or may permit supervised self-insurance. Thus four types of insurance are found. These are (1) state monopoly, (2) a competitive state fund, (3) private insurance, either stock or mutual, and (4) self-insurance, where employers carry their own risk. In this last case, proof of solvency, bonds or other security is required as proof of ability to pay compensation.

Certain points should be noted in a compensation law. These are its scope, i. e., what employments are included; the amount of compensation provided including compensation scale, length of time benefits are paid, maximum and minimum limits, amount of medical service and length of waiting period; provisions for administration, in order that justice and economy may prevail; and, finally, nature of injuries covered and security of payments.

As has been said, no compensation law covers all employees. The chief exemptions, in order of importance, are (1) non-hazardous occupations, (2) agriculture, (3) domestic service, (4) numerical exemption, exempting employers of less than a specified number of employees, (5) public employees, (6) casual employees, and (7) employments not conducted for gain. Fourteen of the 40 states include only hazardous employments. All but Hawaii and New Jersey exempt agriculture. This widespread exemption is apparently due to opposition from farmers as a class, as agriculture can properly be classed as a highly hazardous employ-

ment. Domestic service is exempted in all states except New Jersey.

All compensation laws are limited in scope not only by character of employments covered and persons compensated, but also by nature of injuries covered. Usually the injury must have occurred during the employment and as a natural consequence of it. Usually injuries are not compensated when due to employee's intoxication, gross carelessness or wilful misconduct.

By waiting period is meant the interval elapsing between receipt of injury and beginning of compensation. In Oregon and Porto Rico, compensation begins with receipt of injury. All other states require that disability from injury must extend over a varying waiting period (in 18 the period is two weeks) before compensation begins. A general tendency is evident to reduce the waiting period.

The modern principle of workmen's compensation excludes any question as to employer's negligence and liability. It is based on the economic necessity of the worker. Its risks are assumed by the consuming public, acting through the employer, which furnishes necessary relief and benefits to injured workers. There is sharp difference of opinion as to the extent to which the employee should be compensated for losses resulting from industrial injury. One extreme would put on industry the entire cost of rehabilitation of the injured, including full wages and medical service during disability, and life pension in case of permanent disability. Again it is held that only a fraction of the employee's loss should be compensatable. In most cases, compensation is based on the loss of earning power of the injured workman, while several states base their compensation scale on the workman's need rather than his wage loss.

There is extreme variety in compensation provisions, all seeking, without complete success thus far for a law which will strike a just balance between the financial ability of the industry, the need and loss of the injured worker, and the danger of encouraging malingering.

The California law provides for the payment of 65 per cent. of the weekly wage to the disabled employee, with a minimum of \$4.17 and a maximum of \$20.83. The maximum period of compensation in case of death is 240 weeks; in case of permanent total disability is for life; in case of temporary disability is 240 weeks.

The real object of compensation is the rehabilitation of the injured workman. It is therefore surprising that only four states (of which California is one) require the employer to furnish unlimited medical service. The old idea of compensation as indemnity for employers' negligence is still too common in legislatures. The entire subject of industrial rehabilitation is new and is receiving enormous impetus from the war and the emphasis now being placed on rehabilitation of military casualties. Yet industrial rehabilitation is an enormously greater problem in the United States and a problem which will long outlast the social and industrial consequences of the war.

Neither the medical profession nor civil hospitals are adequately organized to handle this huge problem. Such organization is inevitable and both physicians and hospitals must meet the issue in the near future, whether they wish or not. It therefore behooves physicians to understand the elements of the problem of industrial rehabilitation and to familiarize themselves with present legislative tendencies, economic restrictions and social needs.

A study of the present 40 state compensation laws shows that the scope of these acts and their partial disability schedules have undergone little change since their original enactment. On the other hand, there is constant change and wide vari-

ation in the waiting period and the requirements as to medical service. There is evidence throughout of extreme unwillingness to profit by experience in other states. The result is much misdirected and duplicated effort. One purpose of the Department of Industrial Medicine in the Journal is to help remedy this outstanding defect so far as the physicians of California are concerned. Elective features of these compensation laws have not proved satisfactory as too many employers refuse to come under the act, thus depriving their employees of compensation benefits.

Greatest change has been apparent in the extent of medical services provided. There is a strong tendency to furnish more extensive medical services and to remove a maximum limit, requiring employers to provide medical services as long as reasonably necessary. Closer supervision by the state of the quality of medical service rendered is another outstanding trend. The right of employees to choose their physician, when the employer is playing the fees, is also being established.

SHIPPING BOARD HEALTH RULES.

Lieutenant-Colonel P. S. Doane is director of health and sanitation for the U. S. Shipping Board Emergency Fleet Corporation. He has issued a booklet of sanitary and health welfare standards which is a model of its kind. In the introduction, he says:

"A healthy and energetic force of workmen is as essential to the speedy construction of the ships as a well-laid-out yard, prompt delivery of materials, labor-saving machinery or efficient methods of work.

"The building and operation of ships by the U. S. Shipping Board Emergency Fleet Corporation is the greatest industrial task ever undertaken, and, being a governmental activity, the hygienic and sanitary standards under which this work is carried on should be worthy of adoption by private industry.

"The health of the workers also has a very direct influence upon the cost of building ships, for a dollar's worth of work should be obtained for every dollar paid in wages. This is not possible with employees in ill health or with lowered vitality.

"To obtain such conditions it is necessary that the principles of industrial sanitation as established by actual practice shall be as clearly understood and strictly conformed to. This requires the expenditure of funds, but experience has clearly demonstrated that the investment pays dividends.

"The enormous increase in the shipbuilding industry to meet war needs has caused a constant influx of workmen into the shipyards who are unused to the rigor and exposure of shipbuilding. This condition demands unusual care to safeguard their vitality."

WHAT EVERY DISABLED SOLDIER AND SAILOR SHOULD KNOW.

That the Government is resolved to do its best to restore him to health, strength, and self-supporting activity.

That until his discharge from hospital care the medical and surgical treatment necessary to restore him to health and strength is under the jurisdiction of the military or naval authorities.

That the vocational training which may be afterwards necessary to restore his self-supporting activity is under the jurisdiction of the Federal Board for Vocational Education.

That if he needs an artificial limb or other orthopedic or mechanical appliance the Government supplies it free upon his discharge, and afterwards

keeps it in repair and renews it, when considered necessary.

That if, after his discharge, he again needs medical treatment on account of his disability the Government supplies it free.

That any man whose disability entitles him to compensation under the war-risk insurance act may be provided by the Federal Board with a course of vocational training for a new occupation.

That the Government strongly recommends each man who needs it to undertake vocational training, and put himself under the care of the Federal Board, but the decision to do so is optional with each man.

That if his disability does not prevent him from returning to employment without training, and he elects to follow a course of vocational training provided by the Federal Board, the course will be furnished free of cost to him, and the compensation provided by the war-risk insurance act will be paid to him, but no allowance will be paid to his family.

That if his disability does prevent him from returning to employment without training and he elects to follow a course of vocational training provided by the Federal Board, the course will be furnished free of cost and he will also be paid as long as the training lasts a monthly compensation equal to the sum to which he is entitled under the war insurance act or a sum equal to the pay of his last month of active service, whichever is the greater, but in no case will a single man or a man living apart from his dependents receive less than \$65 per month, exclusive of the sum paid dependents, and a man living with his dependents receive less than \$75 per month, inclusive of sum paid to dependents.

That in addition to the above the family or dependents of such disabled man will receive from the Government during his period of training a monthly allotment and allowance payment in the same amount as that paid prior to his discharge from the Army or the Navy.

That upon completion of his course of training he will continue to receive the compensation prescribed by the war-risk insurance act so long as his disability continues.

That in nearly every case, by following the advice and suggestions of the Federal Board, he can either get rid of the handicap caused by his disability or acquire new powers to replace any that may have been lost.

That if he is willing to learn and to take advantage of the opportunities to increase his skill offered him by the Federal Board he can usually get a better position than he had before entering the service.

That if he fails to take advantage of these opportunities he will find himself badly handicapped when he is obliged to compete with the able-bodied men who come back to work after the war.

That the Federal Board, through its vocational experts, will study his particular disability and advise him as to the proper course to pursue and give him free training for the occupation best suited to him.

That on the satisfactory completion of his training the Federal Board, through its employment service, will assist him to secure a position.¹

That public authorities and other large employers will in many cases, at least, give the disabled soldiers and sailors preference when filling vacant positions, provided they possess the training necessary to fill them.

CONCERNING LARD.

We have been told that American cooking is too greasy, and possibly before the war there was some truth in the assertion; but at the present writing, with the high cost of lard and lard substitute, we

¹ Vocational Summary, October, 1918.

are inclined to believe that the American chef is not so extravagant with grease.

Lard of itself is a fat food, the composition of which produces a higher number of heat units than any other food substance, and with the enactment of various food laws it was found to be adulterated principally with beef fat and cotton seed oil. This formula under existing laws is known as compound, and has a very ready sale, as against pure lard, on account of its cost, which is considerably less, and from a hygienic and dietetic point of view there are many who prefer this mixture.

Lards are classified commercially as Neutral Lard, Leaf Lard, Kettle Rendered Lard, Standard Lard and Butchershop Lard.

Neutral lard is manufactured from leaf lard and is chiefly used in the manufacture of butter substitutes, such as oleomargarine.

Leaf Lard is made from the residue after extracting neutral lard, and is a higher grade product.

Kettle rendered lard is made mostly from trimmings.

Standard lard is made from the fat of the whole animal, including the mesenteric fat.

Ordinary butcher-shop lard is open kettle rendered, and is made from fats obtained from trimmings and scraps, but has the disadvantage of being darker color, due to rendering over an open fire.

Cracklings, a by-product of this lard, is used for chicken feed and soap grease. An interesting feature in connection with the manufacture of lard is the melting point.

Fat from the intestines has the highest melting point, namely, 111° , whereas, the fat from the foot has the lowest melting point, namely, 95° . For the determination of organic impurities in lard the color reaction has given very good satisfaction, and is very simple to apply.—C. L. Megowan, V. S., Sacramento Dept. of Health.

There was a time, not so long ago, when a man who applied for work at a factory had to be physically sound in every way. A cripple was a cripple, and there were few avenues of employment open to him. The changing industrial conditions are making places for men who formerly were considered unfit. The fit are supposed to fight in this day and age.

A few days ago an advertisement made an appeal for "slightly crippled men for light factory work." Probably never before in the history of Indianapolis has there been such a demand for labor that factory owners have to resort to advertising for cripples to fill the jobs. This is merely indicative of the many useful things that the slightly crippled may do. Crippled men and women have held office positions for years and their infirmities rarely interfere with their efficiency. Probably the same thing will be true of factory employment. The normal man does not realize the value of a full complement of arms, legs, and fingers. If one hand is maimed, the other hand is forced to be twice as useful as formerly. There are men and women with two artificial arms who do intricate work, and do it satisfactorily.

Paving the way for the use of cripples in light factory work may mean looking forward to the time when men injured in the great war are sufficiently recovered to go back into the industries. Much is being done now in the way of reconstruction for these men. They are taught work that they can do, regardless of what has happened to them. The chief idea is to provide every maimed man with an education so he can earn his living. After the war there should be as little charity as possible. Returning soldiers will not want alms, but they will want a place to work and a fair chance at the job.—Indianapolis News.

Department of Pharmacy and Chemistry

Edited by FELIX LENGFELD, Ph.

Help the propaganda for reform by prescribing official preparations. The committees of the U. S. P. and N. F. are chosen from the very best therapeutists, pharmacologists, pharmacognosists and pharmacists. The formulae are carefully worked out and the products tested in scientifically equipped laboratories under the very best conditions. Is it not plausible to assume that these preparations are, at least, as good as those evolved with far inferior facilities by the mercenary nostrum maker who claims all the law will allow?

PROPER USE OF DRUG NAMES.

The Journal of the A. M. A. expresses indignation because a bottle containing Liquor Cresolis Compositus was labeled "Lysol" at a certain institution where Army medical men were receiving instruction. It may be that it had been found necessary to label this "Lysol" because some of the medical men did not recognize it under its official title. This preparation was first introduced to the medical profession under the name Lysol and seems to have supplied a want or it would not have been adopted into the U. S. P. It was generally used and prescribed as Lysol before it became official and as it was nobody's particular business to notify the medical profession of its official title many physicians remained ignorant of this and others proceeded to forget it almost as soon as they heard it. While on the other hand, it was the business of the detail man to keep the name Lysol alive and to get the medical profession and the public to use that particular brand known as "Lysol." The physician merely followed the path of least resistance.

We have many illustrations of this same difficulty in overcoming inertia in the use of patented and copyrighted names. The substance commonly known as Veronal was patented in this country and imported from Germany under the name "Veronal." About a year ago the Federal Trade Commission authorized several firms to make this under the name "Barbital" as there seemed to be legal difficulties in the way of authorizing the name "Veronal." The medical profession was notified through the medical journals and asked for patriotic reasons to prescribe Barbital and not Veronal. Nevertheless, a survey of 200 prescriptions containing this article show exactly four in which the word Barbital was used.

Aspirin shows the value of a name. Acetyl Salicylic Acid was patented in this country and the patentees copyrighted the name "Aspirin" using this on their patented article. Most chemists believe that this patent should not have been granted but the courts sustained it and as it was nobody's business to have the case reopened, the patent stood. It is impossible to state how much good American money went to Germany as a result of this decision which probably would not have stood a second test. It seems likely that the sum was nearer \$20,000,000 than \$10,000,000. Aspirin became perhaps the most popular and widely used drug on the market prescribed by physicians and used by everybody for everything imaginable. The patent on the substance has now expired but the Company is trying to retain a monopoly of the name "Aspirin" and if it succeeds in this, will make many millions of dollars out of this name. Aspirin was not advertised to the public but only to the physician in what seems a perfectly ethical manner. The physician prescribed it for his patients and the patients recommended it to their

friends and the pharmaceutical houses made aspirin tablets by the millions. At the beginning of the war the Bayer Company saw a chance to make some money and promptly took it. On the ground that the raw materials were expensive and difficult to obtain, the price of aspirin was boosted and then aspirin as such, was practically taken off the market. At the same time, this was flooded with aspirin tablets made by the Bayer Company. The public was notified by extensive advertising that the only genuine aspirin tablets were the Bayer Aspirin tablets and was requested to insist on Bayer Tablets. These tablets were sold by the Bayer Company for less than the price it asked for the aspirin they contained. Of course, if the public could be induced to insist on the Bayer Aspirin tablets, the patentees would have a perpetual monopoly. However, when the patent expired, other firms began immediately to make the tablets of acetyl salicylic acid and these were sold as Aspirin tablets. The Bayer Company, however, insist that the name "Aspirin" is their property and must not be used by others. The Courts have not yet passed upon this question, although it is to be hoped that they will before very long. If the Court should decide that the name Aspirin is public property, the whole problem will be easily solved. If, on the other hand, the Courts uphold the copyright, the name Aspirin can be used only for one particular brand of acetyl salicylic acid and some simple name must be found by which the public and the physician can identify ordinary acetyl salicylic acid. It is to be hoped that this matter will be allowed to remain in statu quo until the courts have decided it. In the meanwhile at least one pharmaceutical house has introduced a new empirical name for acetyl salicylic acid claiming that this name stands for a particularly pure brand of this article. As a matter of fact, careful study of acetyl salicylic acid bought in the open market shows that it is of excellent quality and that the adoption of specific names by different houses would only tend to confusion.

PURCHASE OF NARCOTICS

Collector of Internal Revenue Justus S. Wadell has issued the following statement in regard to order forms for the purchase of narcotics:

Order forms are the official papers issued by the Government for the purchase of narcotics. They are put up in books of ten originals and ten duplicates and are sold to registered parties for ten cents a book. They are used only for the purchase of narcotics. The wholesaler buys from the manufacturer, the retailer from the wholesaler, and the doctors, dentists and veterinarians buy from the retailer by means of order forms. A person using them must be registered under The Harrison Narcotic Law in the district in which he transacts business.

When a person registers in this office, whether he is a doctor, dentist or veterinarian, he is only allowed to prescribe narcotics and cannot purchase them on his prescription blanks, but must be supplied with order forms from this office.

A requisition card (Form 679), when filled out properly, is used for the purchase of these order forms. Only a registered person or one who has power of attorney on file in this office, can use these cards to purchase order forms.

Form 679 properly filled out is required, before any order forms will be sent, as a card index system is kept in this office for reference.

Parties sending for order form books are required to remit ten, twenty, thirty or forty cents, etc., not fifteen, twenty-five, thirty-five, etc.

Form 679 is sent to any registered person on

request, and a few forms are inserted in all books leaving this office for future orders.

Full directions for use of order forms are on the back of each book.

All persons are requested not to wait until order forms are entirely used up before ordering others, as pressure of business in this office may cause delay in sending them out.

Before leaving this office the party's registry number, name, address, street and number, city and state, and the Internal Revenue district in which the registered person is either practicing his profession or in business, are inserted in the book.

The section dealing with narcotics in the new revenue law as passed by the House has been eliminated by the Senate Finance Committee. This section provides that "every person who imports, manufactures, produces, compounds, sells, deals in, dispenses, or gives away opium or cocoa leaves, or any compound, manufacture, salt, derivative, or preparation thereof, shall register with the collector of internal revenue of the district his name or style, place of business and place or places where such business is to be carried on, and on or before the first day of July, annually thereafter, and pay special taxes as follows:

"Importers, manufacturers, producers, or compounds, \$24 per annum; wholesale dealers, \$12 per annum; retail dealers, \$6 per annum; physicians, dentists, veterinary surgeons, and other practitioners lawfully entitled to distribute, dispense, give away, or administer any of the aforesaid drugs to patients upon whom they are in attendance, shall pay \$3 per annum."

Deputy Hugh O'Connor in the office of Collector of Internal Revenue Wardell gives the following comprehensive explanation of that section of the Federal Narcotic law, which provides for the issue of order forms in purchasing or selling a drug store, a feature of the law which Deputy O'Connor says is not generally understood by many druggists:

"Jones, a registered dealer and owner of the Model Drug Store, wishes to dispose of it to Smith, another registered dealer. Jones gives Smith a Bill of Sale of everything in the store except the narcotics (he can include the price of narcotics in bill of sale) but he must receive an order form from Smith, the purchaser, for the full stock or inventory of narcotics in the store.

"The original order forms, Smith gives Jones, would show how Jones disposed of his narcotics, when he sold the store, and the duplicate remaining in the order form book would show how Smith procured the narcotics, or to simplify matters, you buy the stock of a drug store the same as you would purchase narcotics from the wholesale house.

"A new narcotic license must be obtained by Smith for the location of the Model Drug Store, before the purchase can be made."

Grip of Germany on Many Industries

A comparison of revelations made by the office of A. Mitchell Palmer, alien property custodian, covering a period from the time America entered the world war until the present shows a startling repetition of certain names among those representing German interests. These revelations have come at considerable intervals, so that only by a close comparison of the names involved does it become clear that the trail of the Imperial Ger-

man Government left here by former Ambassador von Bernstorff, usually revolves around the same group. A name often mentioned in these revelations is that of Richard Kny. He was born in Germany, but is a naturalized American citizen and the father-in-law of George Simon, an enemy alien, who was manager of the Heyden Chemical Works at Garfield, N. J., until they were seized by the alien property custodian.

It is said in authoritative circles that the work of unraveling the connections of Kny and his attempts to control the drug, chemical and surgical instrument business in the United States have been far more interesting and absorbing than any detective fiction ever written. The facts in Kny's case are said to have far outstripped the imagination of any literary dreamer in working out international plots and situations.

The four principal companies in which Kny has been found to be either the head or heavily interested are the Heyden Chemical Works, Garfield, N. J.; Eiseman Magneto Co., New York; Kny-Scheerer Co., New York, and the Chemical Exchange Association, the last-named being the camouflage devised by Kny and Dr. Hugo Schweitzer to control the carbolic acid supply of the United States and prevent it from going into the manufacture of munitions to be used against Germany. The official revelations in connection with this last-mentioned concern were made public by Mr. Palmer on October 18th.

The cunning and secret work of Kny and his associates was so well covered up that only the most careful work on the part of Mr. Palmer's assistants succeeded in uncovering it. The question which now interests the drug, chemical and surgical instrument trade is whether or not other companies will be found to be the property of the same crowd of aliens with which Kny was associated and which are believed to be responsible for the long list of explosions, burnings, ship sinkings and other outrages which have infuriated the people of the United States nearly every week since the war began.

The Kny-Scheerer Corporation, one of the biggest dealers in surgical and electro-medical instruments, scientific apparatus, hospital and sanitarium supplies in the United States with offices at No. 404 West Twenty-seventh Street, New York, used the identical trademark as the Jetter & Scheerer Co., of Tuttingen and Berlin, Germany. This trademark appears on the letter-head of the Kny-Scheerer Corporation and appears in the advertisements inserted in German technical publications by Jetter & Scheerer Co., of Germany. Official investigation has shown within the past few days that both of these companies are still using this trademark.

The Kny-Scheerer Corporation had the exclusive American agency for the products of its parent concern, the Jetter & Scheerer Co. The German concern claimed to be controlled by the German Government and E. S. Beck, its secretary, until Mr. Palmer seized the company, was a brother-in-law of the Scheerer who owned most of the parent concern. This Scheerer's wife is said to be a close relative of Count von Buelow, the well-known Teuton official.

Evidence now in the hands of the alien property custodian shows conclusively that the Imperial German Government, through careful investments made by Ambassador von Bernstorff in this country, tried and almost succeeded for a time in controlling the drug, chemical and surgical instrument business of this country and imperiling the supplies of these articles required by the Army and Navy of the United States. It is believed the master brains who advised von Bernstorff and Dr. Albert, the official German go-between, were Dr. Hugo Schweitzer, former chemist of the Bayer Company, and Richard Kny.

New Members

Wolf, Geo. L., San Francisco.
 Player, L. P., San Francisco.
 Ireys, Junius, Lakeside.
 Mann, E. C., San Diego.
 Carpenter, C. R., San Diego.
 Macpherson, Jas. F., East San Diego.
 Bloch, Herbert L., San Francisco.
 Boyers, Luther M., Berkeley.
 Burns, R. E., Alameda.
 Van Tassell, F. H., Berkeley.
 Jones, Edwin F., Oakland.
 Downes, Chas. S., San Francisco.

Transferred

De Ville, Leon, from San Diego Co. to San Francisco Co.
 Hawkins-Ambler, G. A., from Los Angeles Co. to San Francisco Co.
 Saphro, Elisabeth M., from Los Angeles Co. to San Francisco Co.

Deaths

Arnold, Chadwick Evans, a graduate of Cooper Medical College, Calif., 1901. Licensed in California, 1901; died on November 7, 1918, from pneumonia, following influenza.

Allen, W. L., a graduate from the King Eclectic Medical College, Iowa, 1889. Licensed in California 1901; died in National City, Calif., November 18, 1918.

Billingsley, Carey Val, a graduate of California Eclectic Medical School, Los Angeles, 1914. Licensed in California, 1915. Died in Santa Ana, November 3, 1918, from influenza.

Burton, H. G., a graduate of the University City of New York, 1869. Licensed here, 1894. Died recently.

Long, Alfred Dow, a graduate of Harvard Medical School, Mass., 1907. Licensed in California, 1910. Died November 17, 1918, in National City, Calif.

Murphy, Lewis Jerome, a graduate of the Medical College of Indiana, 1903. Licensed in California 1906. Died in Los Angeles recently; age 41.

McLean, Robt. A. Graduated from Medical Dept. Univ. of Calif., 1874. Died in Berkeley, Calif., December 5, 1918; age 67.

Stirling, Chas., a graduate of the College of Physicians and Surgeons, Chicago, Ill., 1888. Licensed in California 1889. Died in Oakland, Calif., November 28, 1918.

William Lundy Brown, M. D., 1133 Ingraham street, Los Angeles; Bennett Med. Coll., Ill., Jan. 2, 1875; licensed Nov. 12, 1896; professor of physiology at Bennett Coll. from 1891 to 1892; a member of the health dept. of So. Dakota; agency physician of the Sioux Indians, Yanktown, South Dakota, during the "Wounded Knee" outbreak; aged 67; died at his home Nov. 21 from uraemia due to chronic interstitial nephritis. He is survived by his two sons, Dr. T. Floyd Brown of 950 West Sixth street and Mr. Everett F. Brown of Oakdale, Cal.

Captain Harvey L. Thorpe, M. D., Los Angeles; Rush Med. Coll., Ill., March 16, 1909; licensed April 20, 1909; member of the Los Angeles County Medical Association; aged 36; died of pneumonia Nov. 4, on a transport en route to England, where he was buried. He is survived by his wife, at the Rex Arms, his mother, Mrs. K. E. Thorpe, 747 West Eighteenth street, and three brothers, Dr. Lewis S. Thorpe of Los Angeles and Covina; Mr. Benjamin Thorpe, president of the San Diego Chamber of Commerce, and Mr. Charles Thorpe of the L. A. high school faculty. His mother was one of the charter members of the Friday Morning Club.

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Contributors, subscribers and readers will find important information on the sixteenth advertising page following the reading matter.

VOL. XVII

FEBRUARY, 1919

No. 2

STATE PROGRAM BEING FILLED.

The Committee on Scientific Program wishes to remind authors who are to read papers at the next annual meeting, which is to be held in Santa Barbara the third week in April, that titles and synopses *must be in the hands of the Secretary by March 1st*. Because of the absence of many of the members of the Society who have been connected with the Service, and because of the great stress of work which has resulted from the prevailing epidemic of influenza, the Committee this year suspended its former ruling that all titles and synopses be in the hands of the Secretary by January 1st. Remember the dates—April 15, 16, 17.

The ruling that all authors must deliver to the Chairman of the Section before which his paper is read, a copy of said paper *before reading*, will be strictly adhered to and the members are requested to bear this ruling in mind and govern themselves accordingly.

Among the topics to be considered will be group alignment, specialists' fees, civil reconstruction and rehabilitation, later treatment of empyema, lung surgery, influenza, and other timely subjects.

Kindly forward titles and synopses as soon as possible to the Secretary, Robert A. Peers, Colfax, California. Dr. Peers has returned from his work with the Red Cross in France and resumed his position as Secretary of the Program Committee.

NOTICE PARTICULARLY.

Do not forget to say, "I saw your 'ad' in the Journal" when you buy or order. It helps the Journal, the dealer and yourself. If you can say that, you are assured of the quality of what you buy. Just notice how many times this month you can actually *say it*. If you say it but seldom, then for goodness' sake turn at once to the ad-

vertising pages of the Journal and see what an attractive line is available to you. This is no time to shirk obligations. Here is one of yours. Should it. It's not very large. "I saw your 'ad' in the Journal." Write it. Say it. Profit by it.

INFLUENZA CONTROL.

Medical literature is full of the subject. It has been discussed at length in every possible association where people gather. The daily press heralds its dangers and new advances. The death lists grow. The new cases are still rising. We have accumulated an enormous mass of information. We have certain definite epidemiological facts. We have discussed it from every conceivable aspect, and have neglected but one aspect. Regardless of what the "sure-cures" and quacks prate; regardless of the pet fancies of the Eddyites and others of the self-styled mental ilk; regardless of effects on business, on pleasure, on the churches, on the tourists; regardless of everything, we are face to face with the one essential aspect of the question which we have heretofore neglected. Influenza must be wiped out. How do it? By thorough-going measures which look solely to that goal and are not concerned with the secondary issues of which some have been enumerated. Universal compulsory masking, strict quarantine of cases, prevention of public assemblage and all indoor gatherings, clean persons and cities, education in personal hygiene—these are our effective line of campaign. Dr. William C. Hassler, Health Officer of San Francisco, demonstrated what a forewarned, efficient and fearless sanitarian can do when he is given a chance. May he and the health officers of the state be given free hand to prosecute a campaign directed solely to wiping out influenza. It is time to keep politics in abeyance and every issue subordinate to this one objective.

THE SAN FRANCISCO BULLETIN.

In its issue of January 15, 1919, the San Francisco "Bulletin," one of the city's evening newspapers, responds to the goad of the editorial, entitled "Fear and Epidemics," in the December issue of the JOURNAL. The "Bulletin" demonstrates the weakness of its position by refusing to answer the questions raised, by entirely misrepresenting the JOURNAL editorial, and by indulging in cheap wit where logic and facts furnish no defense. It invites "the editor who is so enamored of scientific truth as to the relation of fear to epidemics" to "read the recent report of Dr. Royal C. Copeland, Health Commissioner of New York." The editor in question read this report fresh from the press and has also read and digested practically all of the influenza and epidemic literature which has appeared in this country and Europe in the past year, a situation which the "Bulletin" gives no evidence of having achieved. The "Bulletin" states: "If scientific authorities like the STATE JOURNAL OF MEDICINE and a few physicians who feel affronted by the 'Bulletin's' position will permit a lay question it may be couched in this language: Is it not a fact that fear or worry will cause indigestion and a resultant lack of assimilation of food, and will not such lack of assimilation reduce physical resistance to disease? And is not this merely one of many aspects of the relation of fear to epidemics?" To answer the latter question first. This is but one of many aspects of the relation of fear to epidemics, a fact which was emphasized in the JOURNAL editorial in December. It is *not* the entire situation as maintained by the original articles in the "Bulletin." It is a pleasure to see the "Bulletin" reverse itself in this abrupt fashion. To answer the first question, we quote from the editorial in the December issue of the JOURNAL. (Too bad the editor of the "Bulletin" was so upset that he did not notice it!) "Yes, so the public is warned and has been warned by the medical profession for these many years that fear of disease is a serious pathological agent, and so did Cannon demonstrate and establish, on a clear experimental scientific basis by careful laboratory investigation, of the influence of emotions on physiology." And then the last paragraph of the JOURNAL editorial in December: "There is virtue in the idea of mental health and hygiene, of spiritual poise and fearlessness, of mastery of body and mind. These represent the enduring ideal and hope of the medical profession. It is discouraging and nauseating to see these great truths warped and mishandled in half-baked ignorance by Eddyistic and other faddists."

There are certain direct charges and questions in the JOURNAL editorial which the "Bulletin" sees fit to ignore. Why? Since the editor of the "Bulletin" finds the JOURNAL editorial so amusing and yet worthy of comment to the extent of two-thirds of the "Bulletin's" entire editorial column, would it not be well for him to give his readers an opportunity to share his amusement? It seems to us it would, and the "Bulletin" is therefore, and hereby challenged to publish the editorial entitled "Fear and Epidemics," which

appeared in the December issue of the JOURNAL, and to answer said editorial paragraph by paragraph.

A DEBT TO HEROES.

The Fifth Liberty Loan will be known as the Victory Loan. Victory is not merely a matter of jubilation, accepting surrender of a beaten foe and dropping the gun to take up the plowshare in the furrow where it stood when the call to arms came. The Victory Loan is one of the many great obligations that come to the victors. President Wilson and the members of the American peace delegation are now in France looking after the world obligations. Our part now is to prepare to pay in small measure the debt we owe our khaki and blue clad champions.

A large part of the money to be raised in the Victory Loan campaign next April will be used for the rehabilitation of our wounded men. The Government will do its utmost to restore every wounded American soldier and sailor to health and self-supporting activity.

When the wounded man has been given complete medical and surgical treatment he will be considered by the Federal Board for Vocational Education. If his disability prevents return to work he left at the call of the Government a wide choice of occupation is open to him.

If the injured man needs an artificial limb or appliance of any sort the Government will provide it. Until his special treatment or training ends he will receive regular compensation and the family will receive the allotments. The war risk insurance will be paid until the end of the vocational training if the course is elected without necessity, but in this case the allotments will not be paid the family.

Instead of finding dependent cripples and beggars made so by an unappreciative country, they will be highly trained heroes whose sacrifices will not be tarnished by lack of gratitude.

If you are worth victory, prepare now to buy Victory Bonds.

FAT EMBOLISM AND SHOCK.¹

Fat embolism is very much more common than usually supposed and evidences of it are not infrequent at autopsy. Warthin in 1913 collected 350 cases in which death was attributed to fat embolism. Milder degrees are much more common, and probably the great majority are either unrecognized or unreported. One of the commonest causes is fracture or even severe bruising of bones. Probably every fracture results in more or less pulmonary fat embolism. Bruising of soft parts may also result in embolism, and even operative trauma is at times responsible. Fat subjects are more inclined to it than lean. The condition is also found post mortem in certain diseases, as in nephritis and tuberculosis.

The fat from the marrow or other depot is taken up by veins and lymphatics and deposited in the capillary system of the lungs, the first circulatory obstruction it meets. Long, solid, worm-

¹ See Daily Review of Foreign Press, British War Office, Dec. 1, 1918.

like masses of fat fill the capillaries and even, in extensive lesions, the arterioles. Fat droplets are present, too, but in themselves are of no importance, as they circulate freely. Symptoms during life should only be attributed to fat embolism when solid worm-like masses are present post mortem in the smaller vessels of the lungs. Most of these cases are found associated with trauma.

In most cases the pulmonary vessels catch the most of the fat. Under certain poorly understood conditions, however, it passes to the systemic side and produces serious results. Small quantities in the lungs seem to be harmless. On the basis of experimental work, some claim that part of the fat always goes through, but this is still doubtful. Probably the bulk of body fat is filtered out in the lungs. Little is known as to what circumstances favor its passage through into the systemic circulation. The plugging of lung capillaries may well increase venous pressure and the extra work of the right heart then force the fat on through. In support of this are cases where death in acute fat embolism was due to right heart failure, with fat deposits in the capillaries of the lungs only.

Fat embolism in the pulmonary circulation produces no symptoms until the obstruction is sufficient to strain the right heart. Death may rapidly ensue from cardiac failure. If the obstruction is severe enough at local points in the lungs, partial infarction will follow. Free fat may appear in the sputum and also be phagocytosed. These appearances may aid in diagnosis.

In the lung cases, the onset of symptoms may be sudden and early following the trauma. This indicates immediate entry of fat into the veins, more commonly there is an interval which may be as much as seven days, with a gradual onset finally of dyspnea, cyanosis, fast pulse, falling blood pressure. Immobilisation of fractures is extremely important, with complete rest of the fracture, even to careful avoidance of handling or massage.

In the systemic cases, symptoms are much more variable. Time of onset is about the same. The dyspnea, faint cyanosis, fast pulse and fall in blood pressure are gradually masked by other symptoms, depending considerably on the localization of the embolic process. Cerebral embolism is common and comparable to blocking of the cerebral vessels by subtertian malarial plasmodia. The temperature rises and if the patient lives for a day or two, the skin may show petechiae and the lungs localized moist signs. In a series of 14 cases by Le Count and Ganss, correct diagnosis was made in one only. The sputum, high fever and indefinite lung findings confuse with pneumonia. In fact, the frequent pneumonias in the aged following a fractured femur and rest in bed, may be explained by incomplete infarction of the lungs from fat embolism with secondary infection.

Repeatedly fat embolism is confused clinically with traumatic shock. There is room for extended discussion of the differentiation. There is much to favor the view, however, that the two are distinct, although perhaps overlapping, conditions. Shock is not an exact and single syndrome. The difference in interval and onset is important. There is in many respects a parallel between the

two conditions. It is unfortunate that a greater and more definite effort has not been made under military conditions to determine the relations of shock and fat embolism. Fracture and other bone trauma is excessively common under war conditions. This very important problem has not received the attention it merits.

At autopsy, fat embolism shows venous stasis and right heart dilatation, multiple pulmonary hemorrhages with partial infarction and edema, and multiple hemorrhages of the viscera, brain, and alimentary tract. These hemorrhages follow degeneration of vessel walls, and hence occur at an interval of days after the actual embolism takes place.

Diagnosis is confirmed by fixing sections of lung, heart, kidney and brain, in formalin, cutting thick frozen sections, and staining with Sudan III, scarlet red or osmic acid. Round drops and worm-like masses with the low magnification, are seen in the small vessels.

THE PHYSICIAN AND THE INDUSTRIAL ACCIDENT COMMISSION.

Unquestionably the operation of the Workmen's Compensation, Insurance and Safety Act in this state has not been satisfactory to the medical profession. Fundamentally, the elimination of the free choice of physician by the employee is subversive of professional ideals. The substitution of the physician employed by the state fund or by the private insurance carrier in the place of the family physician by dictate of the statute, aroused a deep and abiding sense of injustice in the breast of the doctor.

We believe that the profession, in order to render the greatest service to the public and to itself, should recognize certain indubitable facts. First, that workmen's compensation *is* and *will be*. It is recognized by many forces in society as a beneficial and marked advance in social welfare, and, therefore, vain repining for the old order, cherishing regrets therefor, or ineffectual criticism of the present order are alike futile. Second, neither the state fund nor the insurance carrier can, as an economic proposition, operate successfully by allowing free choice of physician. This merely means that the profession must keep step with economic progress and accommodate itself to the present condition.

The movement now under way at the instance of President Van Zwahlenburg to secure a careful analysis and report, so far as the doctor is affected, through a carefully chosen and properly qualified committee, will bear fruit. We earnestly hope that members will accede to the request made already in these columns and let us hear from them on this subject. Another feature often criticized by physicians is the low fee schedule operative with the Industrial Accident Commission and casualty insurance carriers in general. There are various factors to be considered here. The physician's overhead expense has advanced probably at the same rate as his cost of living. His fees have not advanced. Workmen's wages have advanced rather in proportion to the cost of living. Should not the fee schedule be higher? Should

the fee represent the value of the service rendered to the workman or its value in terms of the physician's skill and time? What is the just basis for all fees? Send in your views. If so desired, your letter or name will not be published. The object is to secure widespread expression of view along these lines from the doctors of the state to the intent that, so far as possible, defects and abuses may be corrected, and the physician's interests protected.

Let us take counsel together, ascertain, make definite and classify any remediable defects in the economic situation arising under this statute, and if the same can be remedied so as to secure more beneficial results for that portion of the public concerned and for the medical profession, let us unitedly endeavor to effect such changes.

SURE CURE FOR INFLUENZA.

With all the multitudinous remedies and preventives recommended of recent months for influenza, it is a relief, indeed, to be offered a simple, safe and sure cure which is available for everyone. This cure and panacea did not originate with any of the old-fashioned doctors who have been groping around for cures and preventives. The discoverer reports that influenza germs enter the body through eyes and ears, as well as through nose and mouth. His cure creates a condition in the blood similar to that following the use of diphtheria antitoxin. This gem of purest ray was discovered in the news columns of the San Francisco "Bulletin" very recently; but read for yourself:

COAL OIL DECLARED CURE FOR INFLUENZA.

Berkeley, January 18, 1919.

Editor "The Bulletin": Seeing your Dr. Hassler in so much trouble, your supervisors agitated and frantically passing ordinances compelling people to wear rags on their faces, I fly to the rescue.

Influenza germs are not always limited to the mouth and nose; they find entrance to the system through the eye and ear. Any doctor with horse sense will tell you that. But there is a preventive and a cure for the malady in reach of everyone—coal oil. Laugh, you wise ones, laugh; but I KNOW.

I've used it in two epidemics like this one and cured scores of friends who had it, and prevented the disease in hundreds of others. A teaspoonful of coal oil given a child twice a day, morning and evening, will prevent "flu," and a tablespoonful will do the same for an adult. Two tablespoonfuls three times a day will cure the worst case, provided it has not developed into pneumonia, and in that it will help. The coal oil creates a condition in the blood similar to that produced by the antitoxin used in diphtheria cases, and the germ cannot exist.

Before using the oil should be filtered through a fine cloth to remove sediment. It isn't bad to take, not half as bad as it would seem at first blush, and IT DOES THE WORK. It makes me tired to see these old-fashioned physicians groping around for cures and preventives when this simple remedy is right at hand. I suppose it is because the statement is not included in the pharmacopeia. Tell your readers to try it once. If it doesn't do all I claim for it, I will eat my hat.

Yours truly,

WM. MORTON.

Verily, our best advice is to follow the instruction of the writer quoted, and "Laugh, you wise ones, laugh." What a receptacle of wisdom and exponent of sound mental hygiene is a newspaper which furnishes such valuable medical and scientific information to its readers and recommends, possibly as a means of lessening the fear of disease, such excellent oft-exposed remedies as nuxated iron, tanlac, S. S. S., together with the wares of certain Chinese herbalists and pseudo-medical specialists. Great is the modern press, and great the misjudgment by some of its members of what the decent public wants.

DRUGGISTS AND THE VENEREAL CAMPAIGN.

According to the Social Hygiene Monthly approximately forty-five thousand retail druggists of the country are being asked to co-operate with the United States Public Health Service in its campaign to control venereal infection among the civilian population. A letter from Surgeon-General Rupert Blue has been mailed to them, together with a pledge of co-operation which each druggist is asked to sign and return. A certificate evidencing his co-operation with the Government in this campaign will then be mailed to the druggist, together with literature to hand to persons who call, without a physician's prescription, for preparations commonly confined to the self-treatment of venereal disease. The pledge which druggists are asked to sign reads as follows:

Appreciating the seriousness of venereal diseases among the armed forces of the United States, as indicated by the reports of the Surgeon General of the United States Army, and desirous of doing whatever is requested by the Government in the war emergency, this store hereby pledges its best efforts in co-operating with the United States Public Health Service and all health officials to reduce the venereal disease scourge among civilians, and specifically does it agree:

1. Not to prescribe or recommend any remedy for a venereal disease.
2. After this date not to purchase a "proprietary remedy" to be sold to the public for the self-treatment of a venereal disease, and not to sell any such "remedy" after December 1, 1918.
3. To refill only such prescriptions for the treatment of venereal disease as were given originally to the customer by a reputable physician who is still in charge of the case.
4. To cause literature furnished by the Surgeon General to be handed to every person asking, without a physician's prescription, for a remedy customarily confined to the treatment of a venereal disease. Further, to direct the applicant to a reputable physician, to a board of health, or to an approved venereal clinic.

The trade of this store numbers approximately people per week.

(Name)

(City)

(State)

(Street)

Date 19....

A similar form of pledge was adopted by the United Drug Company during a recent meeting in Boston.

EDITORIAL COMMENT.

Of 3544 rats examined for plague in San Francisco in 1918, none were found infected.

Goldberger and his associates in the U. S. Public Health Service have conclusively proved that pellagra is due to faulty diet and that it can be prevented and cured by a properly balanced diet.

Of 327 cases of smallpox in California in 1917, five had been vaccinated within the preceding seven years, 30 had been vaccinated more than seven years previously, 260 had never had a successful vaccination, and in 32 the history was uncertain or not obtained.

Authors, whose articles have been accepted by the Journal, are requested to pay close and prompt attention to the instructions for ordering reprints, which always go to the author with the proof of his article. Unless this order is returned promptly with proof, the author runs an excellent chance of getting no reprints.

Certain tropical fluke infections, namely, paragonimus, clonorchis, and schistosoma, are now excludable under the federal immigration regulations. In 1918 at San Francisco, 14 cases of these diseases were found in immigrants. They are incurable and are a grave social and economic handicap wherever they become endemic. It is the danger of introducing endemic foci in the United States that makes it important to control the admission of new cases. They should be excludable under the quarantine law and admitted, if at all, only under sufficient sanitary guarantees.

A warning is being issued by the California Tuberculosis Association to avoid so-called cures for the influenza and tuberculosis. In a recent communication from the National Tuberculosis Association it is stated that not less than \$20,000,000 is invested in the business of manufacturing and exploiting fake consumptive cures.

This blood money is yearly wrung from the people who need better living conditions, more nourishing food, less financial worry and more rest.

When the day comes, and it cannot come any too soon to suit anyone interested in tuberculosis, that a cure which comes in bottles is found, it will be given to the world as other scientific discoveries have been given, and it will not cost \$15 a bottle.

So far, the Almighty has provided the only known cure, and it is not drugs. When the disease is taken in time, and under medical supervision, rest, fresh air, good food and sunshine will assist more in making a cure than any other known agency. The moral is: Don't buy bottled goods to cure consumption, unless it is milk from tuberculin tested cows.

In an excellent brochure entitled, "The Value to Mankind of Humanely Conducted Experiments Upon Living Animals," a bulletin of the Scripps Biological Institute of the University of California, Francis B. Sumner says:

"From these and other considerations made evident in the course of this paper, it seems plain that the anti-vivisection campaign is not based primarily on a desire to mitigate suffering. It would doubtless continue to lead a flourishing life were the infliction of pain completely eliminated from animal experimentation. The real animus, whether consciously recognized or not, is a hostility to the methods and ideals of modern science. The conflict before us is really that between the modern objective method of studying nature by observation, by experiment, and, above all, by hard work, and a relapse into a medieval or oriental subjectivism. The present controversy is but a single instance of this clash of ideals. Science is attacked and must defend herself. Otherwise, we or our successors may find ourselves clutched by the same strong arm of fanatical intolerance which suppressed Bruno and Galileo. Let us not soothe ourselves with the fatalistic delusion that progress is inevitable. History shows that it is not. 'Eternal vigilance is the price of liberty.'"

The entire article is commended to the attention of physicians.

Special Articles

COMMUNICATION ON POST-INFLUENZAL EMPYEMA AND LUNG ABSCESS.

CARO W. LIPPMAN, M. D., San Francisco.

While in charge of influenza wards at the San Francisco Hospital during the months of October and November, 1918, a very careful attempt was made by the whole staff to determine the presence of empyema and lung abscess at the earliest possible moment. We had on the Stanford male service alone twenty-three lung abscesses or empyemata which we could definitely ascribe to influenza. Those cases, with purulent effusions which could be ascribed to the ordinary lobar pneumonia or in which tubercular infection was a factor, are not included in this table. I realize the difficulty of ruling out these two factors. However, only cases without previous history of lung disease, but with the usual history of influenzal onset, are included in this series. The four factors which entered into the comparatively early diagnosis of lung abscess or empyema were:

- (1) Toxic appearance of patient.
- (2) Temperature averaging over 101 during the second and third week of the disease.
- (3) Persistent leucocytosis of 12,000 and over.
- (4) The X-ray findings.

Physical signs were of comparatively little value until the effusion had become massive, as these cases showed the same signs as the pneumonia which preceded them—namely, dulness, bronchial breathing, rales, etc. At times we would also have all the clinical signs suggestive of fluid

at the bases—dulness, markedly diminished breathing—the temperature would, however, be lower (under an average of 101°), and the X-ray shows a patchy infiltration which slowly disappeared day by day.

In every case listed the temperature varied from an average of 101.5° to an average of 103.5° , whereas in the unresolved pneumonias after two weeks the temperature dropped to below an average of 100.5° .

The X-ray findings were of exceeding importance in differentiating pneumonia from fluid—and here I wish to emphasize that there are no pathognomonic X-ray signs of tuberculosis, of fluid, of bronchopneumonia. We are merely studying densities in the light of our clinical picture and pathological knowledge. The one important point brought out to my mind in influenza in watching series of X-ray plates is that the shadow of the central pneumonia in a typical case slowly spreads to the periphery of the lung usually during the second week of the influenza. Then it slowly decreases in density, but if the curious colloid-like necrosis of the lung develops farther we get a denser and denser shadow, which later either breaks through the pleura as an empyema or becomes infected with the pyogenic organisms within the lung substance, forming a true lung abscess.

Of these twenty-three cases fourteen were checked up by operation, either empyema or lung abscess being found. In six, quantities of purulent fluid varying from 100 to 1500 cc. were removed by aspiration. In one no fluid was obtained by aspiration, but 1000 cc. were found several days later at autopsy.

The other three cases in which the needle did not reach the purulent material, all had upper lobar lung abscesses. All three coughed up large quantities of purulent material at a single effort (in one case measured half pint). After coughing up this large amount there was a distinct change for the better of the clinical picture and the fluroscope showed a fluid level within the body of the lung. Two of these cases I have seen three months later. Both have clinical and radiological signs of cavity still.

In this short communication I simply wish to emphasize the importance of the close collaboration of the clinician and the laboratory in making a diagnosis which, acted upon promptly, may save the life of the patient.

135 Stockton street.

CHILD HYGIENE BUREAU.

By ADELAIDE BROWN, M. D., San Francisco.

The National Children's Year Program urges the establishment of a Child Hygiene Bureau in connection with State Boards of Health. To accomplish this purpose for California, the following bill is before the Legislature of 1919:

An act to provide for the establishing and maintenance of a bureau of child hygiene under the direction of the State Board of Health,

prescribing its duties and powers and making an appropriation therefor.

The People of the State of California do enact as follows:

Section 1. The State Board of Health shall maintain a bureau of child hygiene which in addition to the duties and powers hereinafter prescribed shall have charge of such matters and shall have such powers as may, from time to time, be referred to and delegated to it by the State Board of Health. Said Board shall appoint a Director of said bureau who shall be a duly licensed and practicing physician and whose salary shall be fixed by the State Board of Health. The State Board of Health may also employ and fix the compensation of other additional professional and clerical assistants and such compensation shall be paid from the funds provided for the maintenance of the bureau of child hygiene.

Section 2. This bureau shall have power under the direction and supervision of the State Board of Health to investigate conditions affecting the health of the children of this state and to disseminate educational information relating thereto. It shall be the duty of said bureau to advise all public officers, organizations and agencies interested in the health and welfare of children within the State of California.

Section 3. The sum of \$20,000 is hereby appropriated out of any moneys in the State Treasury not otherwise appropriated to be expended over a period of two years by the State Board of Health, in carrying out the provisions of this act. All claims against this appropriation shall be audited by the State Board of Health. The State Controller is hereby directed to draw his warrants for such sums aggregating the amount of this appropriation and the State Treasurer is directed to pay the same.

SUMMARY.

The Bureau of Child Hygiene, under the State Board of Health, will furnish to the women of the state:

First—Instruction in pre-natal care, thus tending to diminish maternal and infant mortality in the first few days of life.

Second—It will give mothers instruction at children's health centers, baby conferences, state fairs, etc., on the facts of child hygiene covering the period from birth to six years of age—a period now known as the "neglected period of childhood." That this is necessary, the physical examinations of Children's Year, showing 47 per cent. of correctable defects in 40,000 California children weighed and measured in June and July, proves.

The Child Hygiene Bureau will collect, file and distribute freely, charts, slides, movie films, etc., on child hygiene for use in the state normal schools, state orphanages, and before women's clubs, etc., where they are asked for. The education of the community to the value of birth registration, of the California clean milk law, of

the prevention of blindness by the use of the prophylactic drops, will be an important part of the work.

The fact that rural children are less guided to overcome physical defects, shows in the Children's Year tests. Better food, more intelligent motherhood, is necessary in our country.

Seven states have Bureaus of Child Hygiene of the type California needs. *No state has ever given one up*, having once established it. The State of California has upheld the National Program for "Saving 100,000 Babies" by appropriating \$5,000 for Children's Year work. *A permanent asset* to the state in this same line would be the Child Hygiene Bureau. That the women want it and appreciate it, is shown by the popularity of the National Program.

Fifty-three thousand, four hundred and sixty-two children were weighed and measured; 120,000 dietaries, 15,000 copies of the State Board of Health Bulletin, and 30,000 Children's Year Bulletins have been distributed from headquarters through the year.

Scientific motherhood has appealed to the University of California so that extension lectures and a correspondence course are under way.

The force to make *permanent* all that Children's Year has established is the *Child Hygiene Bureau*.

This bill will be supported in the Senate by Senator William J. Carr, of Pasadena, and introduced into the Assembly by Mrs. Anna L. Saylor, of Berkeley. The bill is the culmination of the work of the Children's Year Committee of the Women's Committee of the Council of Defense. It starts with the endorsement of the Women's Committee of the Council of Defense, the State Board of Health, and of the Executive Committee of the California State Federation of Women's Clubs.

At the meeting of the Executive Committee of the State Council of Defense, held January 8, 1919, the following declaration by resolution was introduced by President Benjamin Ide Wheeler, of the University of California, and seconded by Mrs. Herbert A. Cable:

"The Executive Committee hopes that means will be provided for 'continuing through the State Board of Health, or otherwise, the work so earnestly and effectively done by the Women's Committee of the State Council under the Children's Year.'"

The demand for such a bureau is shown in the enthusiastic support of the Children's Year Program by the women of California. Such a bureau will guide and standardize much work which is done by the volunteer organizations to-day,—more or less spasmodically. The permanent Children's Health Center and the supervision of Public Health Nurses dealing with child problems, will be part of the work of the bureau. Its work will be educational, in no way compulsory, but meets a need of the women of the State, as mothers and teachers, which to-day is met only by the lay press. The medical profession should set the standard and be the leader in education for health, and this bureau requires medical leadership.

PATHOLOGY AND TREATMENT OF INFLUENZAL PNEUMONIA.

By ALFRED C. REED, M. D. (San Francisco), Lieutenant, U. S. N. R. F., and HENRY SNURE, M. D. (Los Angeles), Lieutenant (j. g.), U. S. N. R. F. (Pathologist), Navy Base Hospital, Mare Island, Cal.

Observation of some three hundred cases of broncho-pneumonia complicating influenza at the Mare Island Navy Base Hospital has given opportunity to use and compare a number of forms of treatment. No specific treatment was discovered nor was any one form of treatment found applicable throughout. Each case had to be taken on its own merits. In effect, treatment was entirely symptomatic except for minor exceptions to be noted. All methods mentioned have been employed and the opinions expressed are based on the actual clinical results.

The pneumonias were associated with three prevailing types of organisms, streptococcus, pneumococcus and influenza-like bacillus. All appeared as definite complications of influenza, which seemed to exhibit a definite predisposition to this complication. The type of pneumonia was apparently dependent chiefly on the variety of complicating organism most available. It was not possible to determine the incidence of pneumonia in influenza owing to the fact that these cases were sent in from various stations, and usually represented the more serious cases at those stations. The pneumonia mortality was about 20 per cent., but this, too, means little owing to the great variation in seriousness of cases from different camps and to the fact that some groups of pneumonias were received in almost a moribund condition. The mortality was considerably lower in those cases developing in the influenza camp of this hospital. This is ascribed to early diagnosis, excellent nursing and early medical attention. All influenza was treated in tent camps and pneumonias were at once transferred to wards in substantial buildings. An estimate of the personnel tributary to this hospital shows an influenza death rate of about 2.5 per cent.

DIAGNOSIS.

Early diagnosis of influenzal pneumonia is of considerable importance and to this end, every case of influenza should have a chest examination at least daily. This examination is easiest made by turning the patient prone on his face with his arms over his head. This separates the scapulae and gives symmetrical expansion and position. Non-symmetrical patches of fine persistent rales, most commonly at or inside the angles or lower posterior borders of the scapulae, are usually the initial auscultatory signs. Diagnosis should seldom wait for percussion signs, nor should it be invalidated by changing location of auscultatory signs. Valuable evidence is afforded by early hemoptysis and especially by the TPR chart. A secondary rise of fever is always suspicious as is also a fast respiration rate. Any one sign may be absent. Only a small minority showed a leucocytosis.

LABORATORY WORK.

Routine urine and complete blood count should

be done at once when pneumonia is suspected. Blood culture should be made for pneumococcus, a white mouse inoculated, and urine precipitin reaction done for type determination. The urine quantity should be measured daily and the acidity noted. Examination for casts and albumin should be repeated. With an alkaline urine, of course, casts will not appear. Washed sputum from the lungs should be examined by smear and culture. Often a sputum examination for tubercle bacillus is indicated. Two cases of active tuberculosis were discovered in our series by this means. If facilities permit, repeated examination of daily output of ammonia in the urine and of the alveolar air will materially assist in the treatment of those cases which show pronounced acidosis.

PATHOLOGY.

With the exception of a few late cases most of the men were well nourished, and death came so quickly that no signs of tissue waste were present. Postmortem discoloration showed nothing unusual. In the early cases the lungs were of a bright red color, glossy, voluminous, and did not collapse on opening the chest. No large amount of free pleural fluid, fibrin or adhesions were present. Lungs were firm, pitted on pressure and sank when placed in water. All lobes were affected or about 90 per cent. of all lung tissue. A small amount of air was usually present at the apex of each lung, and also a narrow fringe of emphysematous tissue along the anterior margin of the upper lobes. The emphysema sometimes extended down the anterior margin of the middle right lobe. Section of the bronchi allowed a large amount of thin red fluid to escape. After being exposed to the air only a short time this fluid clotted.

The walls of the bronchi were markedly congested but not eroded. Crepitation was absent. On section the lung was of a dark red velvety appearance, easily broken and a large amount of dark red fluid could be squeezed from the lung substance. Scraping with a knife did not show a granular surface. Stained smears made at this time showed more red blood cells than leucocytes. The consolidation was confluent with the exception of the apices of the lungs. The above were the findings of those that died at the outbreak of the epidemic. The large amount of fluid present at this time was probably due to both edema and hemolyzed blood. Gradually the consolidation was limited to the lower lobes with only part of the upper lobes being affected, chiefly the posterior areas. The color changed to a dull slate blue color, and still later to a dark brown color when much fibrin was present. Small flakes of fibrin made their appearance on the pleural surface of the lung and a small amount of thin yellow pus was present in the pleural cavity. Section of bronchi at this time showed a small amount of thin, white or yellow pus instead of the red fluid of the early cases. Cut surface of lung began to present plugs of pus and fibrin in the bronchioles, color was more grayish and surface somewhat granular. Small hemorrhages, the size of a nickel, were sometimes found just beneath the pleura. Adhesions made their appearance, becoming more firm as time went on. They were not confined to

any particular region, being found at times between the lobes, at the apices, along the posterior wall and at the base, in about equal numbers. Still later the cut surface of the lung showed a grayish granular appearance with small pink areas between. Lung, as a whole, was much lighter in weight. There was much chocolate-colored pus in the bronchi and the bronchial wall was badly eroded. Cases then appeared in which the lungs had practically resolved, containing very few bacteria but the trachea was filled with thick white pus.

At about this time we had four cases of empyema, one of which was hemorrhagic. The foregoing has been the general course of the development of the pathologic lung process; however, one of the recent cases presented the bright red lung and massive pneumonia encountered at the onset of the epidemic. This man died in the ambulance on the way to the hospital, only a few hours after reporting himself as sick.

The mediastinal lymph glands were markedly enlarged and edematous in all cases.

Emphysema, other than lung, was present in two cases. In one it was confined to the areolar tissue beneath the sternum, over the pericardium and extended down over the diaphragm. In the other case it passed through the chest wall to the skin of the upper chest, shoulders and neck.

The pleural wall at first was smooth and glossy. Later the blood vessels were markedly injected in most cases and the wall covered with a thick yellow fibrin.

The pericardium showed congestion in a few cases and contained on an average of about an ounce of clear, straw-colored fluid.

The heart in the early cases presented no changes whatever, later it was occasionally a trifle enlarged. The right auricle was usually well filled and rarely showed any dilatation. In some of the cases of long duration the heart muscle lost its normal firmness and could be easily torn; these cases were few in number.

In the later cases the heart contained firm clots which were sometimes slightly adherent to the endocardium. The valves were in good order and no endocarditis was noted.

The kidneys showed little or no change to the unaided eye; hyperemia and slight enlargement was present in a few cases, mostly late ones. Occasionally the blood vessels of the kidney pelvis were congested. The suprarenal glands appeared normal.

The spleen, as a rule, was normal. One spleen was about three times the normal size, blue in color, and on section presented a moist, dark red, velvety appearance, similar to the lung tissue in the early cases. One other spleen presented just the opposite condition, was one-half normal size, pale blue in color, capsule wrinkled and cut surface dry and of a light brown color.

The brain, in two cases, showed a slight amount of congestion. Spinal puncture allowed the fluid to escape easily, first portion containing a few red cells and latter portion being clear. Nothing abnormal was found in the spinal fluid.

Liver and intestines were apparently normal.

BACTERIOLOGY.

The bacterial findings were varied. In the first cases pneumococci were found, principally of type 2. Later hemolytic streptococci were always present, with pneumococci staphylococci, small non-pathogenic bacilli and pneumonia bacilli sometimes present. Of 175 blood cultures, 15 were positive; of this 15, ten were pneumococci and 5 hemolytic streptococci. Pfeiffer's bacilli was not present in any case. Bacilli which filled all the requirements of the influenza bacilli, with the exception that they would grow on blood-free media, were isolated from 6 cases. These organisms were found in the lung, heart's blood, pericardial fluid, bone marrow and spleen. These bacilli were non-pathogenic for the smaller animals. We were unable to form any conclusions as to the primary cause of influenza; the cause of death was apparently the secondary infection, chiefly the hemolytic streptococcus.

GENERAL TREATMENT.

All cases were treated in sunny, airy wards, with moderate humidity and air temperature of 65 to 70 degrees. Cubicle isolation was employed very effectively by stringing light wire six feet from the floor between screw eyes in opposite walls. These wires were between the beds. Other wires at right angles, running the length of the ward, were spaced just beyond the line of the foot rails of the beds. Sheets were hung from the wires with heavy clips.

Strict quarantine of all pneumonias was observed. Doctors, nurses, attendants and relatives constantly wore mask, hood and gown. Frequent washing of hands was required and instruction was given in the principles of droplet contagion and its prevention. Only the nearest relatives were permitted as visitors. Fumigation was not used. All linen was sterilized on removal from the patient. Ordinarily this can be done either by boiling for an hour, or by immersion over night in 5 per cent. liquor cresolis comp. This same solution was used to rinse the hands of attendants. Masks were changed once each hour, the used mask being dropped into a basin of 5 per cent. compound cresol, from which it was rinsed in hot soapy water and dried, ready for use again. Instead of handkerchiefs, rolls of toilet paper were placed at each bed and paper sacks pinned to the side of the beds as receptacles. These sacks were collected at least once daily and burned. Pasteboard sputum cups were provided and burned after use. Dishes were immersed in 5 per cent. compound cresol solution after use, then washed in boiling water with strong soap, rinsed and dried. On discharge of a patient, his bed and furniture and the adjacent wood work were thoroughly scrubbed down with hot water and soap, and blankets were sent to the steam sterilizer. Floors were scrubbed on alternate days. During examination by the doctor, bed baths and protracted treatments, a towel was held a few inches in front of the patient's face further to eliminate danger of droplet infection. These towels hung one on each bed and were changed at least daily. Cases were treated as dangerously infectious and contagious, and on this basis no precaution was omitted designed to prevent transfer of infection. Mail was not disinfected. It was not sent away from the

hospital for an interval averaging two days and there seemed no evidence that any possible infection in it would outlast this period. No ill results followed this procedure.

Beds were either provided with adjustable back rests or else supports were placed under the mattress at the head of the bed. These supports were wooden triangular frames, adjustable for elevation, and were made by the carpenters in a few hours' time. The patient was kept elevated at whatever altitude was most comfortable and gave least dyspnea. All patients were more comfortable with some elevation. Care was taken to keep the head in the axis of the chest to promote free respiration.

The general routine care of the patient included thrice daily rubbing the chest with camphorated oil and the application of a light flannel jacket next to the skin. This jacket was laced with ties down both sides and over the shoulders. In cases where initial pulmonary congestion was pronounced or where pleuritic pain was severe, mustard paste was of use, applied freely and repeated after several hours. Poultices and heavy embrocations other than this were not used owing to their insanitary and uncleanly features, and to their interference with free examination of the patient. Examination of the chest is of the utmost importance to gauge the progress of the disease and to guide the treatment, and it must be done with the least possible disturbance of the patient. Judicious use of sweats with hot blankets was beneficial especially in plethoric cases with good circulation.

Oral hygiene is extremely important. The mouth must be kept clean and the lips and teeth free from sores. To keep the lips and mouth moist, a mixture of lemon juice or citric syrup, and glycerin was effective. Herpes is frequent and may be either touched with 10 per cent. silver nitrate or swabbed with spirits of camphor.

A daily bed bath with tepid water and soap, and extreme attention to cleanliness, are necessary. Dobell's solution is satisfactory as a spray for nose and throat each one to three hours and as a mouth wash. Conjunctivitis is usually relieved by 0.2 per cent. zinc sulphate solution in saturated boric acid, or by 1 per cent. protargol.

SPECIFIC TREATMENT.

In general it may be said that no line of specific treatment has shown definitely promising results. Vaccines are considered dangerous in treatment and extremely uncertain in prophylaxis. It is considered best not to use vaccines while the subject is exposed to infection. Their preventive value has not thus far been established either in influenza or in influenzal pneumonia.

Transfusion of whole blood or serum from convalescents offers some promise of benefit. Ross and Hund¹ describe their results with citrated convalescent whole blood at the civilian employees' hospital on Mare Island and this is worthy of further investigation and trial. Their results are suggestive and if confirmed by others, and extended to a larger series of cases, offer considerable promise. We have used transfusion of whole citrated normal and convalescent blood in a limited number of cases without appreciable benefit.

Under no circumstances should transfusion be done without preliminary examination of the donor's

1. Journal A. M. A., Dec. 14, 1918.

blood to be sure that it is homologous with that of the recipient and that the Wassermann reaction is negative. Also it is of the utmost importance to be sure that the donor's blood is sterile and to this end probably 48-hour cultures are necessary. Most benefit of course, would be expected to attend this procedure when the type of pneumonia in the recipient is the same as that from which the convalescent donor had suffered.

When type 1 pneumococcus is found, the commercial Flexner serum should be used. 100 cc. of this can be given with a salvarsan apparatus, using normal saline in twice distilled water to wash it in. This dose should be repeated at twelve to twenty-four hour intervals for two or three days. Desensitization is secured by injection of 0.5 cc. subcutaneously, 0.5 cc. intravenously, 2.0 cc. intravenously, at one hour intervals. In actual practice, this is not requisite. In a considerable number of such treatments, we had but one case of serum sickness and this was quickly followed by improvement from a critical condition.

DIET.

A standard high calory diet was provided. During the more severe course of pneumonia, it is impossible to meet the calorific requirement, but every effort should be made to keep the daily calories above 2500. The following dietary instructions proved satisfactory:

DIET SHEET.			
Whole milk,	1000. cc.	Cream,	250. cc.
Cereal,	120. cc.	Gelatin jelly,	120. cc.
Lactose,	120. cc.	Eggs,	6
Custard,	240. cc.	Baked potato,	50 or 1
Toast,	3 slices	small potato	
Butter	10. g.	Malted milk, dry,	30. cc.
		Ice cream,	2 dishes

(In case of acidosis, the fats were reduced.) Six feedings daily at three hour intervals, 9 P. M. feeding to be hot unless temperature is over 102. Add diet sheet to chart, showing quantities and calories taken each day. Total calories should be over 2500. Lemonade with milk sugar *ad lib.* allowed except near regular feeding times. Total fluids should be at least 2500 cc.

Out of this table the nurse or dietitian prepared six feedings which totaled at least 2500 calories. The diet sheet for the history chart of the patient was arranged as follows:

Per day:

Date,	10, 10, '18	10, 11, '18
(For example)		
	Calories	(etc.)
Milk,	500 cc. 360	
Sugar,	60 cc. 246	
Potato,	50 cc. 45	
Cereal,	60 cc. 222	
(etc.)	—	
Total calories	873	
6 A. M.		Total fluid intake
9 A. M.	(Instructions	10 '10/'18 3000 cc.
12 M.	for preparation	10/11 '18 2650 cc.
3 P. M.	of 6 feedings.)	(etc.)
6 P. M.		
9 P. M.		

From this diet chart, the doctor can see at a glance what the patient ate the preceding 24 hours and can at once order such dietary changes as he wishes. In the more toxic and acidosed cases, the art of the nurse in getting the patient to eat is of particular importance. Just as in typhoid, the results of proper feeding were very evident.

THE CIRCULATION.

In the average case, digitalis was given, 1 cc. of the tincture in water by mouth three times daily. In serious cases seen late, where the stomach was in good condition, 4 cc. of the tincture were given by mouth three or four times the first day and then stopped. It is to be remembered that digitalis is but slowly absorbed and that its action seldom begins within eighteen hours, and often not until thirty-six hours after its oral administration. Vomiting and nausea were very frequent and often so severe as to preclude any medication by mouth. In such cases strophanthin was administered intravenously, 0.5 mg as an average dose, and 1.0 mg when the cardiac condition was urgent.

In those numerous cases where the circulatory failure was to a large extent due to vaso-motor paresis, with a systolic blood pressure of 70 and less, and a diastolic pressure not accurately registered, or where the pulse pressure was abnormally high, a combination of ergot and pituitrin was administered hypodermically with excellent results. Two cc. of aseptic fluid extract of ergot may be followed in two to four hours by 1 to 2 cc. of pituitrin. These doses should then be repeated according to indication, usually not within eight to twelve hours. The blood pressure machine is in constant use and a most valuable aid. Every pneumonia should have twice daily reading at least. Strychnin 1/30 grain and camphorated oil 2 cc. were given hypodermically in addition in alternation, one to three hours apart. Usually not over 1/10 grain, as a maximum, of strychnin should be used per twelve to eighteen hours. The value of these two latter remedies has been a prolific source of debate. In our experience, they seemed of definite value, especially when combined as described. Spirits of camphor, ten drops in a teaspoonful of water, was given in addition to the hypodermic camphorated oil, where tympanites was excessive, or hiccough present. In those cases where hypodermic treatments were extensively employed, they were administered chiefly in the subclavian and lateral costal regions. The medicament was always massaged enough to promote absorption. The very large number of intravenous and hypodermic treatments were in no instance followed by abscess.

Caffeine was used rarely owing to the extreme inclination to sleeplessness and nervous excitement. This tendency was made distinctly worse by caffeine. Here, as usual, when high mental excitement was associated with a weak heart, morphine was of the utmost service, being given in small doses (1/6 grain), corrected by atropine, and with due regard for the possible onset of pulmonary edema.

One of the most useful procedures, especially with a weakening right heart, cyanosis, and labored respiration, was venesection. This may be repeated as often as three or four times daily when indicated, 50 to 150 cc. of blood being abstracted each

time. Venesection is very often followed by temporary improvement of circulation, respiration and mental condition. According to the condition at the time, either simple venesection was practiced, or from 100 to 400 cc. of salt and soda solution, or glucose solution were run into the vein. A rather large needle was used for venesection. In many of the sicker patients the blood was dark, thick and would not flow through the needle, resembling the circulatory condition of cholera. Here a 150 cc. Luer syringe was used to aspirate the blood from the vein, the same needle then being attached to a salvarsan apparatus if infusion was desired. Saline infusion can also be given with a syringe very easily if only a limited quantity is required.

HEMORRHAGE.

Epistaxis was frequent and severe, and apparently beneficial. It was always possible to control it with adrenalin gauze packing. Hemoptysis was not severe nor dangerous in any of our cases. Bright red blood streaked the sputum in the great majority. Several cases suffered from intestinal hemorrhage, sometimes of moderate severity. The treatment was as for intestinal hemorrhage from any cause. In 10 severe cases of pneumonia and ten typical cases of influenza, uncomplicated, the coagulation time of the blood was entirely normal. For this reason as well as for the lack of any definite indication, coagulen and other reputed coagulants were not used. The only exception to this statement was a small group of malignant hemolytic streptococcus infections where acacia solution was used, with, however, only a delay in the fatal end.

RESPIRATION.

The mechanical interference with respiration by the progressive involvement of lung tissue in the consolidating process, is an important factor in the production of cyanosis and dyspnea, especially late in the disease. The other great factor is acidosis. In the majority of fatal cases, respiration ceased before cessation of the heart beat. Pulmonary edema was very common and developed nearly always to a greater or lesser degree as the broncho-pneumonic involvement reached the final fourth of the lungs. Atropine was of very definite service and its action seemed to be enhanced by strychnin. Aromatic ammonia by inhalation gave temporary assistance, as a respiratory stimulant.

Oxygen was usually employed near the end but its chief beneficial effect was on the relatives, to whom it represented the last word in treatment. In one case where death occurred on the twenty-fourth day of broncho-pneumonia, oxygen inhalations were of distinct value, and probably delayed the end by 48 hours or more. The terrific dyspnea and cyanosis here were invariably relieved by the inhalations. In this case, autopsy showed both lungs completely consolidated with an aggregated massive broncho-pneumonia. Oxygen is worth using if care is exercised to keep the tension within safe limits, but in our experience, with the exception of the one case noted, it had no appreciable effect.

Proper ventilation, with the head and chest raised, gave considerable respiratory relief. A current of gently moving air on the face seemed most refreshing to the patient. When window ventilation could not be properly adjusted to secure this, electric fans were employed.

Acidosis was combated by the high calory diet and reduction of fats, with high carbohydrate intake, by soda and glucose proctoclysis and infusion, by venesection, and by appropriate attention to bowels, and skin.

Cough was more apt to be painful and severe late in the disease than early. Potassium iodide, ipecac and small doses of codein were found most useful. Lemon juice syrup, hot drinks and such expectorants as squills were also used. Ammonium chloride seemed of small service. For severe and painful cough, nothing took the place of Dover's powder. If an irritable stomach prevented its exhibition by mouth, codein or morphine was administered hypodermically.

GASTRO-INTESTINAL TRACT.

Practically all patients had had thorough catharsis during the precedent influenza. With the onset of pneumonia, however, except in the presence of some definite contra-indication, 2 grains of calomel were given in quarter-grain doses at intervals of fifteen minutes. Six hours later this was swept through with Epsom salts. In cases where constipation and slight icterus appeared somewhat later, this dose was repeated, especially in the presence of tympanites.

Tympanites was common, and especially at first was very troublesome, often proving a very grave complication. The most effective procedure against it was gravity proctoclysis. A porcelain irrigator with 500 to 1000 cc. of 2 per cent. soda bicarbonate in 5 per cent. glucose was placed not over six inches above the level of the rectum. The fluid was allowed to run through an open tube ending in a soft low colon tube. With no pressure, the fluid ran in only so fast as it was absorbed. Under these conditions, flatus is expelled through the irrigator freely. Tenesmus is not aroused. The soda and glucose are absorbed in sufficient quantity to combat the acidosis. If given at room temperature, there is a definite tendency to lower the body temperature. The patient receives a certain degree of caloric value from the glucose. The treatments do not disturb the patient. They are given three or four times daily if needed so often. If necessary, they were preceded by a low colon flush to clear the rectum and sigmoid, with 25 per cent. magnesium sulphate or soap-sud solution. Similar low enemas were also used to unload the lower bowel when needed, in the absence of indications for proctoclysis.

Not infrequently there was associated with the pneumonia, a moderate degree of cholangitis, or even possibly, a diffuse hepatitis. This was shown by icterus, a sense of fullness and tenderness over the right costal margin, an increase in size of the liver. This was more likely toxic than metastatic. The calomel purge seemed of special use in such cases.

Nausea and vomiting were prominent features of the pneumonia as well as of the influenza. In many cases nothing could be given by mouth. These patients were kept comfortable by mustard plasters to the epigastrium and the administration of soda bicarbonate water, or carbonated water after each emesis, with nothing else given by mouth. In a few cases, champagne was of great help.

NERVOUS SYSTEM.

Nervous complications of influenzal pneumonia are exceedingly frequent. Meningismus and definite meningitis were observed. Several cases very similar to an acute exhaustive psychosis developed. Neurasthenia was fairly common. Delirium and other evidences of a wet brain were also common. Sleeplessness was as prominent as in the straight influenza. Of drugs, barbital and trional were used with much satisfaction, while paraldehyde, chlorotone and bromides were occasionally required.

KIDNEYS.

The urine showed a typical febrile picture and in a minor percentage gave evidence of definite metastatic renal infection. This was confirmed in several cases at autopsy. It is important to keep the urine neutral or slightly alkaline, if possible.

LEUCOCYTOSIS.

Influenza resembles typhoid, dengue, and kala azar in its leucopenia. In the last, it is known that an intercurrent septic infection which produces a leucocytosis, will not infrequently result in cure of the kala azar. This, however, is a chronic disease of two or three years' duration. It is probable that increased leucocyte count in influenza would also prove beneficial or even curative. Leucocytic extract seemed to give a fairly consistent rise in white count, requiring however at least six injections at intervals of a day. In other words, the rise is not fast enough to promise much help in influenza. The great majority of the post-influenzal pneumonias also showed a leucopenia, or normal white count. Transfusion perhaps offers more promise in this direction than any other method.

OTHER COMPLICATIONS.

Certain striking epidemiological observations were made with reference to complications. The first run of cases of influenza during the ascendancy of the epidemic were more severe and the pneumonia developing was earlier and more fulminant, than later in the course of the epidemic. Those developing pneumonia either got well quickly, that is, within five or six days were in safety, or else were dead.

There were practically no other complications. After the decline of the epidemic the virulence suddenly and noticeably decreased, so that in a space of some three days there suddenly developed a large number of other complications such as sinusitis, including the antrum, middle ear, arthritis, hepatitis, empyema, pleural effusion, etc. These continued while the death rate greatly decreased. The primary virulence was doubtless due to the rapid spread and augmented strength of the infective agent. The severity of the complicating pneumonias was also parallel.

In all, pleurisy and empyema developed in only a few cases, and were treated, the former by counter irritation, opiates if needed, sand bags and strapping,—the latter purely as a surgical condition. Pleural effusion was aspirated and in those cases where the fluid gradually became purulent, aspiration was repeated as long as good drainage could be secured. Then enough rib was resected to permit thorough irrigation with Dakin's solution and the usual principles of later treatment were followed.

Particular attention was devoted to ear complications. The drum was incised early and every effort made to forestall mastoid and sinus extension. Nasal sinus infections were not infrequent and were drained early.

A few cases of toxic drug rashes were seen and a number of patients showed a facies and skin suggestive of scarlatina or measles.

INTRAVENOUS TREATMENT.

Glucose infusions are without doubt valuable in reducing acidosis, supplying necessary caloric requirements, and relieving the waterlogged tissues of their excess fluid. Commercial glucose is considered unsafe. Only C.P. dextrose or U.S.P. glucose should be employed. Fifteen to twenty-five per cent. solutions are best, using 300 cc. per hour at 100 degrees, given in a salvarsan apparatus, and a total quantity of 400 to 600 cc. This treatment can be repeated once or twice daily. Occasionally a chill and general reaction follows, but these are rare and in our experience gave no ill results. In certain cases, after venesection, 1 per cent. soda bicarbonate in normal saline was used in the same proportion. All intravenous infusions were prepared with doubly distilled water and were autoclaved.

Intravenous quinine hydrochloride was used in a few cases, 0.6 g. in 10 cc. water, introduced into the vein slowly with a syringe. This seemed to promise some benefit rather in influenza than in pneumonia. Massive doses of sodium salicylate (5.0 g.) intravenously gave symptomatic relief in influenza, in many cases a severe local reaction, and on the whole no better results than by mouth or rectum. In severe gastric irritation, this method is to be considered. It is not advisable when pneumonia threatens.

TEMPERATURE.

Temperatures of 100 to 101 degrees were often associated with high toxemia. A few cases went over 106. Hydrotherapy was much less efficacious than was to be expected. Cold sponges and alcohol sponges were given hourly when the fever was 103 or over in cases where sweating was not employed, but chief reliance was placed on cold enemas and proctoclysis, and abundant cool fresh air. Coal tar anti-pyretics were strictly contra-indicated with the onset of pneumonia. The slow pulse of influenza was often carried over into the pneumonia, until the vasomotor tension began to weaken.

CONVALESCENCE.

Convalescence is very slow from both influenza and the later pneumonia. In this, influenza exhibits another striking similarity to dengue. Prolonged rest, forced feeding, fresh air and sunlight are of the utmost importance. Permanent heart strain is easily produced. An iron and strychnine tonic is of value. A persistent cough should indicate cod liver oil and special attention to build up the weight. The lung signs clear up slowly and tuberculosis should not be diagnosed too quickly.

CONCLUSIONS.

Until the cause of epidemic influenza is definitely known, it is impossible to determine the nature of the peculiar predisposition to pneumonia which follows it. Having no specific or curative treatment for influenza, we have likewise no definite or specific method for preventing the onset of pneumonia. The treatment of influenzal pneumonia must there-

fore be purely symptomatic, and follow a close study and constant observation of the patient. Death in influenza practically always is due to pneumonia, and careful observation and examination will show the correct diagnosis.

Original Articles

RATTLESNAKES: THEIR VENOM AND ANTIDOTES

By SAXTON POPE, M. D., San Francisco.

[Read before the San Francisco County Medical Society.]

Rattlesnakes are sufficiently common to render them quite interesting. It is true that very few persons in this country are bitten and that the mortality is only 12 per cent. The possibility, however, of being among the 12 per cent. lends a touch of dramatic feeling to the situation. In India the mortality from cobra bite amounts to 20,000 annually. Of course the rattlesnake is not the only venomous reptile in America. We have the copperhead, the water-moccasin, the coral snake and the Gila monster. The first two are far less venomous than the rattler, and the last two seldom bite unless handled.⁶

There are at least seventeen varieties of rattlesnakes; the smallest is the pigmy rattlesnake of Carolina, Georgia and Florida, not much more than a foot in length.⁶ The largest is the *Crotalus adamanteus*, or Diamond Back, reaching a length of eight feet and a diameter of four inches. This is found only in the Gulf States. The California variety is the *Oregonus*, or in the southern portion the *Crotalus atrox*.

All of these come under the classification of pit vipers, characterized by the presence of a sharply marked depression between the eye and the nostril. Nothing is known of the function of this peculiar structure, but since it is abundantly supplied with specialized nerve tissue it has been assumed to have a sixth sense, or at least a sense unknown to humans. There are so many popular superstitions regarding snakes that it may not be out of place to correct a few of them. Pit vipers are viviparous, that is, their young are hatched inside the mother snake. At birth they are the size of a slate-pencil and about a dozen in number. But there is no accurate observation to show that snakes of this class ever enter their parent's mouth or stomach after birth. Such habits, however, have been reported of other reptiles. During the first year the young rattlesnake sheds his skin three times and, starting with a simple button on his tail, possesses three rattles at the end of the season. He accumulates these ornaments thereafter at rather irregular intervals; at first several a year, and later not so frequently. They break off and are lost, so that in no way can they be regarded as mile-posts in his career. It is a sad disillusion, but you simply cannot tell a snake's age by his rattles. They are cleverly jointed keratin capsules, appendages of the skin, and may be removed or even added to at the discretion of the person who owns the snake. In their native state these snakes eat

at irregular intervals, in adult life probably not more than once or twice a month. Their food consists mostly of field mice, gophers, young rabbits, and sometimes birds. In captivity, the more venomous of them—the *Adamanteus*, *Atrax* and *Oregonus*—will not eat and must be fed forcibly. With a little water, snakes have been known to live two years without food. During the winter they hibernate, secreting little venom and eating nothing. In the spring they shed their skin and are ready for business again.

There is no authentic evidence to prove that snakes can charm animals and thus attack them. Birds, mice, guinea pigs and gophers put in the cage with a rattlesnake show no fear of the snake, but jump all around it and even perch on its head. In captivity one of these rodents can kill a snake. It is doubtful if the rattlesnake, the prairie dog and the owl ever live harmoniously in the same hole. The snake probably is an interloper, or has sought refuge there temporarily, or occupied a deserted habitation for convenience.

In striking, a snake only can reach about a third of its length. It is impossible for it to throw itself off the ground and strike at full length. Usually their distance is less than a foot, and they are not always accurate shots at this. The rattlesnake will charge, and most of them will avoid an encounter if possible, but the diamond back will seldom retreat and is the most courageous and formidable reptile known.

The rattle itself is simply a sound produced by friction of the jointed horny segments as they shift to and fro. The vibratory rate has been timed on a kymographic recorder. It generally is about 120 per minute. It is not reasonable to assume that the snake consciously tries to give warning when he rattles. Probably it is only a manifestation of excitement. Other varieties of snakes that have no rattles still vibrate their tails during excitement. The *Crotalus* uses this as a call during the mating season.

Apparently the fatality of a *Crotalus* bite depends upon the quantity of venom injected, and not upon any difference in quality amongst snakes. A snake only a few hours old may cause serious poisoning.

The amount of venom in the glands varies from a few drops to a teaspoonful, according to the size of the snake. The quantity ejaculated by a good-sized California rattler is usually five to ten drops. In color and consistency venom much resembles saliva. It is acid and highly irritating to the skin. In drying it loses about 75 per cent. of its weight, looks like pepsin, and has an unpleasant musty odor. Weir Mitchell found no apparent loss of strength after keeping venom twenty-three years.³ Bacterial contamination does not reduce its strength appreciably, but prolonged boiling destroys it.⁸

The venom is secreted by two glands situated at each side of the upper jaw and covered by the temporal and external pterygoid muscles. These muscles when in strong contraction squeeze out the poison, forcing it through a duct at the base of the hollow fang. The fang itself is a tooth, fashioned like a hypodermic needle, markedly curved and

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penetrated by a canal which empties at its point on the anterior surface.

Knowing nothing of herpetology, it surprised me very much when I first dissected a rattler, to find many immature fangs besides those visible.

The mature fang is set on a tilting base, a loosely articulated superior maxilla. This bone is capable of being pushed forward by the anterior thrust of the pterygoid plate. The contraction of the sphenoptyergoid muscle brings the fang into an erect position at the time of striking. Quiescent, the fangs are folded back and covered by a sheath of mucous membrane. At the bottom of this pocket, or *vagina dentis*, lie the reserve fangs. These replace the mature fangs as they are broken off or lost through age. Naturally, the snake sheds its fangs every three or four months. If one be forcibly removed, it is replaced in a couple of weeks.

In the act of striking, the snake opens his mouth at an angle of nearly 180 degrees. At the same time the fangs are projected forward, and as they penetrate the victim the jaw is closed with a forceful compression of the poison sacs, thus injecting the venom. So quick is the strike and recovery that the eye can not follow it; only a blur marks the action.

An animal bitten by a large reptile may die in a minute. In fact, venom injected into the tail of a rat, and the tail cut off in one minute, will still cause death.¹¹

Bites in the human, on the face, or penetrating a vein, have caused almost instant death.⁶

The effect of poison is general and local. The most serious general action is that of a neurotoxic nature in which the medullary centers, especially respiratory and the vasomotor, are attacked. Death may result directly from a respiratory paralysis. There is a grave drop in vasomotor pressure, and surviving this, the victim may die from a chronic nuclear degeneration of the cord.⁹

The local toxic effect is due to the presence in the venom of several protein poisons that produce capillary thrombosis, and rupture, which may result in quick death. There is also a cytotoxin which has a very destructive effect upon epithelium, and to which we may ascribe the profound changes occurring in the kidney, liver and other viscera.⁹

There is also an element which destroys the bactericidal property of the blood. Anderson recently has shown that there is a constant bacterial contamination normally in venom, an encapsulated anaerobic bacillus which is pathogenic. Two persons who had been treated for epilepsy by crotalin injections developed serious infections from this organism; one case ended fatally.¹³

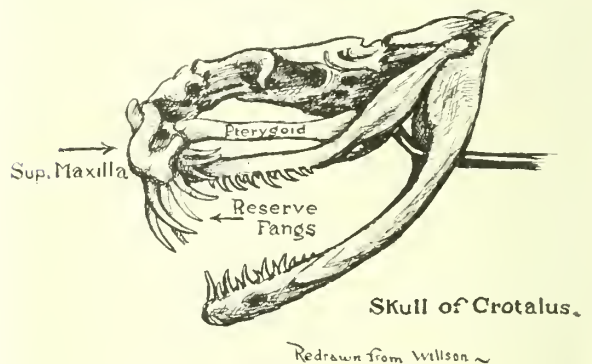
The following is a list of elements in venom:

1. A factor producing instantaneous intravascular thrombosis.
2. A neurotoxin.
3. An element which causes capillary rupture and hemorrhage.
4. A hemolysin.
5. A cytolytic substance.
6. A toxin which causes hardening of the red cells.

7. An element which destroys the bactericidal property of the blood.⁹

The modern study of viper poison was begun when S. Weir Mitchell, in 1861, made his first Smithsonian Report. Since that time an immense amount of experimental data has been accumulated, especially by the French. Mitchell, Mueller, McFarlan, Pearce, Noguchi, Flexner, Kaufman, Wyman, Calmette, Marie Phisalix, Acton and Knowles are some of the names prominent in these researches. The substance of their work, from an immunity standpoint, establishes the fact that while a fairly successful antivenin may be produced to combat cobra venom, which owes its toxicity largely to the neurotoxin element, no practical immunity can be produced against the thrombin, the hemorrhagin, the hemolysin, or the cytolsin of virus. When these substances are given in large enough doses to stimulate immunity, reactions, almost invariably they kill the animal injected.

It is obvious that neither people nor animals can have an acquired immunity against rattlesnake bite. Snake catchers and professional charmers often claim this immunity, but I have observed that all of their snakes have their poison sacs slit open and their fangs broken off. Where this has been done, the snake requires constant attention. The poison sacs are swabbed out once or twice a month with hydrogen peroxide and the new fangs are carefully plucked. At the same time the snakes are forcibly fed.



Reptilia have a partial immunity against their own venom, and it is doubtful if one ever stings himself to death, or can be poisoned by escaping venom. Mitchell injected as much as 10 minims of its own venom into the back muscles of a rattler without apparent harm to the animal.²

Of course the greatest interest in this subject is centered around the antidote. From prehistoric times the number of antidotes has been vast, and their efficacy proverbially unreliable. Prayers, herbs, dancing, chicken blood; all have been tried.

Ishi, the Yana Indian,¹¹ who gave the rattler a wide berth and never killed it if he could avoid it, said that the frog is nature's doctor for snake bites. This leads us to the very interesting observation that from time immemorial the batrachian has been used as an antidote.

By far the most remarkable series of experiments, outside of Calmette's serum, have been performed by Marie Phisalix⁷ on the reciprocal im-

munity of vipers to salamander poison and viper poison to salamanders. Salamander skin macerated in salt solution and precipitated by alcohol gives substance she calls salamandrine. This is extremely fatal when given hypodermically to Mammalia and birds. But viper will stand a dose ten times that lethal to a pigeon. She also established the fact that venom mixed with salamandrine is no longer toxic to other snakes. If venom be heated and mixed with salamandrine no antitoxic action results, and the animal injected dies of salamandrine poison.

These are a small part of the findings in her extensive research, but they were sufficiently interesting to lead me to conduct a few experiments in the same category. I removed the skin of a large salamander, the *Diemictylus torosus*.¹⁵ The very common California water dog has in the mucous glands of its intergument a poison so strong that when lizards, frogs or snakes are put in the same cage with it, they all die but the salamander. This skin, therefore, I macerated in salt solution and added 5 per cent. alcohol. Five minims of this emulsion given hypodermically usually kills a guinea pig in ten minutes. The animal dies with all the symptoms of strychnine poisoning. Besides this evident neurotoxic effect, there is an active hemolytic substance which augments the toxic action. It is evident that we are dealing with a very powerful poison. In fact it seems quite as deadly as viper venom. Mueller of Australia, in 1888 used a

snake strikes this and ejects its venom into the glass. Gently squeezing the glands may extract more secretion still.

The minimum lethal dose of dried venom for guinea pigs is about two milligrams, or 1/30 of a grain. This kills some pigs in a few minutes, others live twenty-four hours; so in these experiments I have usually employed ten milligrams, or 1/6 of a grain. Venom dissolved in salt solution containing a small percentage of phenol seems to lose its strength. I therefore always made fresh solutions with normal salt solution. A guinea pig injected hypodermically with this gives immediate evidence of pain, trembles, urinates, breathes rapidly, shows weakness of the posterior extremities or develops opisthotonus, stops breathing, and dies within fifteen minutes. At autopsy there is a general hemorrhagic edema, multiple ecchymoses, hemorrhagic infarcts in the viscera; and in delayed death, acute nephritis and local gangrene occur.

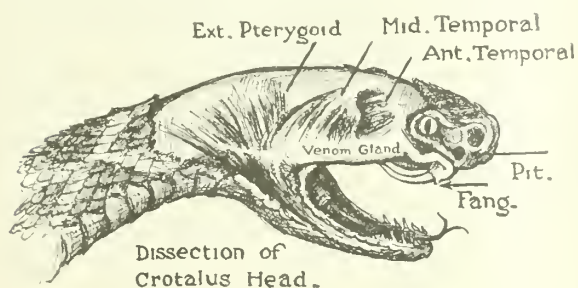
The amount of dried venom on a fang that has been removed from a rattler is not sufficient to cause any serious trouble, should a person accidentally be wounded. Such a fang was inserted in the flank of a guinea pig and left for two hours. No harm resulted. It certainly would not kill a human to be scratched by an isolated fang—all dreadful stories notwithstanding to the contrary. Probably it would require ten to thirty drops of fresh venom to kill a man. This represents approximately 5 grains of the dried secretion.

In this series of about seventy-five experiments, the venom has been injected in the flank or leg, followed by the antidote either in the same location or the opposite side. The time elapsing between the poison and antidote has varied from one minute to twenty. In some cases I have tried to apply a ligature of the leg above the injected area, as suggested by Stegner, but this has not worked well because of the small size of the animal used.¹

To test the antidotal effect of salamandrine, I injected seven animals. Of this number two died within an hour, two died within forty-eight hours, and three survived.

It seemed to have no effect in lessening the hemorrhagic edema; in fact, it seemed to increase the local hemorrhage, but changed the type of death. Sometimes where a dose of five minims was used, the animals died more promptly. From this admittedly crude test, I assume that salamandrine is too dangerous and too unreliable an antidote for practical purposes, and does not prevent the local toxic effect of *Crotalus* venom.

Among the early Spanish settlers of California, and among certain backwoodsmen of today, there is a popular belief that the plant known as Yerba del Vibora, or *Daucus pusillus*,⁵ is an antidote against snake bite. "In every superstition there is a grain of truth." To test this aphorism, I obtained some of this famous rattlesnake weed from an old trapper who solemnly swore that he had seen it cure snake bite, and always carried some of the precious plant on his person in case of accident. He used it as a decoction and a poultice. From the specimens he gave me I made a tincture. The therapeutic properties of *Daucus pusillus* have



similar substance to combat snake bite, and from this suggestion Madame Phisalix conducted her experiments.

Abel and Macht of Johns Hopkins have shown that another batrachian, the tropical toad *Bufo aqua*, secretes from his skin glands a poison used by the South American natives as an arrow poison.⁴ Its action is similar to that of epinephrin and digitalis and it has been proposed as a cardiac stimulant.

To test this salamander extract for its possible utility as an antidote to rattlesnake bite along with other supposed antidotes, I procured a quantity of venom while out camping, by catching a number of snakes of the variety *Crotalus oregonus* and dissecting out their poison sacs. I exhausted this supply, obtained more venom from the Rockefeller Institute, and later still came in possession of a live rattlesnake that serves as a constant supply of the material. To obtain this, the snake is caught with a leather thong on a stick, lifted out of its cage, the body is held near the tail, and a glass covered with rubber dam is approached to the mouth. The

not been worked out, and it is doubtful that it has any. A cubic centimeter of this tincture injected hypodermically or given by mouth to guinea pigs has no appreciable physiological effect. As an antidote, I followed the injection of venom in from one to twenty minutes by ten minims of this tincture at the site of the first injection. Strange to say, in ten experiments eight of the pigs lived and only two died. This is rather interesting, but hardly convincing. To test whether or not the 10 per cent. alcohol used in the tincture played any part in this result, I controlled my findings by two injections, both of which resulted in death, showing that nothing need be credited to alcohol. Owing to a lack of venom, I am compelled to leave this possible antidote until another time.

It has been shown that the blood serum of any snake is toxic to other animals, and Bertrand and C. Phisalix demonstrated that this was due to the internal secretion of the salivary glands. Acting upon the fancied analogy, I tried the effect of human saliva on venom. Only two guinea pigs were used in this, but both died.

The rest of my experiments, numbering some fifty injections, were divided between control injections and the following antidotes: potassium permanganate, calcium hyperchlorite, chromic acid solution and Bufagin. Of these, 1 per cent. acid was found to be the best, 1 per cent. permanganate was quite reliable, and 1 per cent. calcium hyperchlorite was worthless.

Chromic acid seems to prevent the hemorrhagic, hemolytic and local infection the best, and to do the least harm to the tissue itself. These were also the findings of Kaufman.

Potassium permanganate crystals rubbed in incised wounds cause sloughing while hypodermic solutions of 1 per cent. do not.¹¹

Chromic acid used in a similar manner will do the same thing. Hypodermically it causes pain but no great tissue destruction. In large amounts, of course, chromic acid will produce a nephritis. But this is hardly probable with the few cubic centimeters of 1 per cent. solution used at one injection. As much as 1 cc. injected in guinea pigs causes no apparent harm.

Neither of these substances should under any circumstances be used intravenously. They cause intravascular clotting and immediate death, in laboratory animals.¹¹

A small quantity of Bufagin was very generously given me by Professor Abel of Johns Hopkins. Dissolved in 50 per cent. alcohol, a dose of 1/10 to 1/2 milligram hypodermically is not toxic to guinea pigs. As an antidote it seems to have no constant value. Of five pigs injected, only two survived a number of days, and one of these succumbed to septic lesions later.

It is obvious from this work that there is no absolute antidote. The antivenin serum applies only to one element of the poison, and in rattlesnake bite this is the element of least importance. To abort the local effect, any substance may be helpful that will destroy globulins or peptones. Acids, heat, oxydizing substances, or coagulants may be used. Mitchell has shown that ammonia

is worthless. Any substance must be used within a few minutes of the bite. The poison is absorbed like any other hypodermic, showing its first effects in large animals in about ten minutes.

Systemically, there is no antidote. Noguchi proved that the administration of strychnine caused the animals to die more quickly. Alcohol is responsible for 10 per cent. of the deaths from snake bite, and is in no way an antidote. Five per cent. of the deaths result from sepsis following the bite.

What is the proper thing to do in snake bite? First apply a ligature above the bitten part. This must not be too tight, sufficient only to obstruct the venous return and even this should be relieved momentarily from time to time. The second thing is to expose the part, cleanse or disinfect it, if possible, and incise the skin to the full depth of each puncture. The third thing to do is to apply suction and encourage bleeding either by a Bier cup or the mouth. Here whiskey might be used as a mouth wash to prevent, as much as possible, infecting the wound with mouth organisms. The venom, of course, is not toxic to suck or to swallow. The fourth act is to inject a 1 per cent. solution of chromic acid hypodermically and later apply compresses of this at the site of the bite.

Following this emergency treatment, general measures should be inaugurated. Quiet the fears; rest the body; relieve the pain with morphia; give salt solution, either intravenously, or by Murphy drip, give black coffee, use the antivenin for what good it may do; apply warmth to the body; and remember that over 85 per cent. get well.

BIBLIOGRAPHY.

- 1 The Poisonous Snakes of North America. Smithsonian Institute Report. Leonhard Stegner.
- 2 Mitchell and Stewart. Transactions of the College of Physicians. Third Series. Vol. XIX.
- 3 Mitchell. New York Medical Journal, January, 1868. No. 1V.
- 4 Abel and Macht. Bufo Aqua. Poison of the Tropical Toad. Journal A. M. A., May 27, 1911. Wm. Withering. Digitalis. 1776. Abbe Felice Fontana. 1730-1803.
- 5 Daucus Pusillus. Yerba del Vibora.
- 6 Raymond L. Ditmars. The Reptile Book.
- 7 Marie Phisalix. Journ. de Physiologie et de la Pathologie Generale. Septembre, 1909.
- 8 Mitchell, McFarland, Noguchi. Proceedings, Path. Soc. of Philadelphia. February, 1903.
- 9 Noguchi. Osler's Modern Medicine. Vol.
- 10 Van Denburgh. Gila Monster Venom.
- 11 Acton and Knowles. Indian Journal of Medical Research. July, 1914.
- 12 Bannerman. Ind. Jour. Med. Res. July, 1914.
- 13 Anderson. J. A. M. A. March 21, 1914.
- 14 University of California. Department of Anthropology.
- 15 Diemetylus Torosus. Van Denburgh.

TUBERCULOSIS OF THE UTERUS.

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Tuberculous involvement of the uterus has been known to exist since the description of a case with an account of the pathological changes in the tissues by Morgagni in the year 1744. He stated that an autopsy was performed upon a young woman who had died of tuberculous peritonitis. He found the uterus and the Fallopian tubes filled with a caseous, necrotic mass, and the Fallopian tubes and ovaries bound together by very dense adhesions. From this time occasional cases of tuberculous invasion of the female genitalia were reported by various writers, but the question of uterine tuberculosis did not receive careful attention until the discovery of the tubercle bacillus by Robert Koch in 1882. Shortly after this, the tubercle bacillus

was demonstrated in a vaginal secretion by appropriate staining technique by Babes, and in 1886 Hegar published a pretentious article upon the cause, diagnosis and treatment of the condition. While it is the consensus of opinion among medical men that tuberculosis of the uterus is by no means a pathological curiosity, yet a search of the medical literature startles one with the comparative rarity of reports of cases of this disease being contributed to the medical literature. In the Index Catalogue of the Surgeon General's Library, and in the Index Medicus, there are listed articles reporting only 146 cases of tuberculosis of the uterus, excluding those cases invading only the cervix uteri. One receives the impression that cases of the disease must have been more frequently observed, but the average medical man has not paused to record permanently his observations.

The disease occurs during all age periods of life. The earliest reported case of tuberculous involvement of the uterus occurred in a child two months of age, being secondary to a general tuberculous peritonitis. The oldest patient reported in the literature was a woman eighty years of age, who succumbed to a general miliary tuberculosis, with localization of the disease in the uterus and Fallopian tubes. While the disease may occur at any age period, the greatest number of cases reported have occurred between the ages of twenty and twenty-nine years, while the following decade furnishes about one-half as many cases. The incidence of the disease by age periods is shown in table I.

Table I. Incidence by age periods.

Years	Cases
1-9	9
10-19	11
20-29	45
30-39	25
40-49	13
50-59	12
60-69	4
70-79	2
80	1

Tuberculosis of the uterus occurs in four main types: ulcerative, miliary, interstitial, and peritoneal. In the ulcerative type, the earliest stages are not recognizable to the naked eye. The first visible appearance of this type is in the occurrence of minute, yellowish-white nodules upon the mucosa, or just beneath the surface of the mucosa. As these nodules increase in size, they are prone to coalesce, causing the mucous membrane to become roughened and uneven. After coalescence, the tubercles undergo caseous degeneration, the caseous necrotic mass ruptures through the overlying tissues and is discharged into the uterine cavity. At times the narcotic debris is so extensive that the cavity of the fundus is converted into a large sac filled with a grumous, pus-like material. The ulcer usually has ragged and undermined walls, its floor may be formed of degenerated mucosal cells, or the floor may be formed by the underlying exposed muscular layer of the wall of the uterus. Sometimes there are small miliary nodules located on the floor of the ulcer. There may be larger or smaller patches of nearly normal mucosa separating

the ulcers, or the entire uterine mucous membrane may be extensively invaded and changed. Microscopically, the stroma of the mucosa is infiltrated with tubercles, showing endothelial leucocytes, giant cells and caseous degeneration. The uterine glands of the mucosa usually escape involvement in the process until rather late, when they become obliterated and transformed into tuberculous tissue. When the floor of the ulcer rests upon the muscular tissue of the wall, it is usually lined by a layer of closely packed small round cells.

In the miliary type of the disease, the mucous membrane is studded with minute, slightly raised, yellowish-white tubercles. These tubercles are often located within the mucosa, just beneath the surface. In such cases, the mucous membrane over the nodules is intact, although somewhat paler in color. There is considerable tendency for these nodules to undergo degeneration. Often in microscopic sections of these nodules, one finds the caseous center filled with polymorphonuclear leucocytes, indicating perhaps that a secondary infection of the nodules has occurred. In the mind of some observers, the miliary type of the disease in the uterus is merely a stage in the development of the disease-complex, in that to them, it merely represents a rather early stage in the development of the ulcerative form. It is assumed that as the miliary nodules increase in size, they coalesce and break down, forming ulcers in the mucous membrane. It is practically agreed that as soon as ulcers develop in the mucosa, the disease has passed from the miliary type and become the ulcerative type.

The interstitial type occurs much less frequently than either of the other forms. It is probably caused by tubercle bacilli, being carried through the blood stream and deposited in the muscular coat. The proliferation of the bacilli ensues and there arises the development of typical tubercles among the muscular elements. The tubercles separate the muscle bundles and in their development destroy the muscle fibres. Under the microscope, one sees the muscle bundles separated, with collections of endothelial leucocytes, giant cells, small round cells, and varying degrees of caseous degeneration. In sections suitably stained, the tubercle bacillus may be demonstrated, although usually in somewhat scanty numbers.

In the peritoneal form of the disease, the invasion of the uterus is manifestly secondary to a tuberculous peritonitis or a tuberculosis of the intestinal tract. The lesion takes the form of small, miliary nodules located upon the peritoneal covering of the uterus. This type of the disease is not strictly to be classed as tuberculosis of the uterus, since it is merely a part of a generalized peritoneal tuberculosis, and comes into relationship with the uterus only by virtue of the uterus being in part covered by a reflection of the peritoneum.

There are two main forms of the disease, the primary and the secondary. The existence of the primary form of the disease was strenuously opposed by medical writers for a long period, but there are to be found in the literature a number of well authenticated cases of the primary form.

The primary form may arise through coitus with a male suffering from tuberculous orchitis or epididymitis, and the tubercle bacillus has been demonstrated in the seminal fluid by competent observers. A primary case of the disease might also arise through an ascending infection through the contact of the vagina with unclean instruments, infected napkins or dressings, and soiled hands. The secondary form is usually caused by the carriage of the bacilli through the blood or lymphatics from a distant focus, usually in the lung, to the uterine tissue, or a secondary case may develop by extension of a tuberculous process from an adjacent organ as the ovary, peritoneum, or intestine. The secondary form is by far the more common. In the cases collected, there were 15 cases of primary tuberculosis of the uterus, while the secondary cases numbered 89.

The localization of the disease in the uterus may occur in a number of ways. The infection may be through the blood stream, the bacilli being carried from a primary focus as in the lung through the circulation and find lodgment in the mucosa or muscularis of the uterus. It would appear that this is the route of infection in the cases where the tuberculous process is primarily situated within the muscular coats of the uterus. In a similar manner, the infective agent may be carried to the uterus by way of the lymphatic circulation. Since a fairly large proportion of the cases occur in women suffering with pulmonary tuberculosis but without peritoneal involvement, the blood and lymphatic circulation must be held responsible for the carriage of the infection in these cases. The infection may come from a tuberculous peritoneum, the bacilli gaining access to the fimbriae of the Fallopian tube, thence passing directly outward through the tube into the cavity of the uterus. In these cases, there may or may not develop a tuberculous salpingitis. Whenever there is developed a tuberculous salpingitis, the mucosa of the uterus usually becomes secondarily infected. Again the uterus may be invaded by a tuberculous process through the direct extension of the virus from an adjacent or adherent tuberculous structure, as a tuberculous appendix or ovary, or at times, a tuberculous loop of intestine. This probably occurs much less frequently than infection by way of the circulation or from the peritoneal fluid. Infection at times occurs from external sources, as from contact with infected linen, instruments, or hands. It is also an undoubted fact that infection does occur through sexual intercourse with a male suffering from a tuberculous orchitis or epididymitis or prostatitis. While such infection by coitus does occur, it must be remembered that it is much more rare than the infection occurring through the blood stream or by direct extension.

The symptoms of tuberculosis of the uterus offer no marked difference from the symptom of other uterine inflammatory conditions. The patient often comes to the physician complaining of some menstrual difficulty. Either there is an indefinite complaint of menstrual trouble, without specific description of the same, or else the patient gives a

story of dysmenorrhea, metrorrhagia, menorrhagia, or amenorrhea. Of these complaints, metrorrhagia is the most frequent, while amenorrhea is the least frequently complained of. Many patients also complain of a feeling of weight in the pelvis, especially pronounced at the menstrual periods. The presence of hypogastric pain which increases on long standing upon the feet and radiates to the lumbar region, to the upper thorax, and along the perineum, has been noted by many observers. Many patients complain of a more or less continuous vaginal discharge or leucorrhea. This leucorrhea appears in women of all age periods, but is particularly apt to be found in those who have passed the menopause. There is often complaint of an indefinite intermenstrual pain given by these patients. Pain is as a rule of rather late appearance in the course of the disease, but painful menstruation, painful defecation, and progressive constipation are suggestive of tuberculous involvement of the uterus. When the tuberculous involvement of the uterus is secondary to tuberculosis elsewhere in the body, one should find the symptoms of the primary disease, such as progressive loss of weight, afternoon temperature, rapid heart, and night sweating. In the more rare primary cases, these symptoms are less easily elicited, and are less dependable when found.

On examination of the patient, one may find a profuse leucorrheal discharge, which may or may not contain streaks of blood. This discharge offers no characteristic appearance suggestive of tuberculosis. The presence of a menorrhagia or a metrorrhagia draws the attention of the examiner to the probability of an intrauterine pathology. On examination of the vagina by means of the speculum, one may at times detect this leucorrheal discharge exuding from the cervical canal. The cervix uteri as well as the vagina itself may offer absolutely no findings suggestive of the condition, but in rare cases the cervix may present tuberculous involvement. In such cases, the appearances are often more suggestive of carcinomatous invasion than of tuberculosis. Under the bi-manual examination, the uterus may present nothing abnormal to the examining fingers, but in many cases the uterus feels boggy and softer than normal. In cases where a tuberculous pyometra exists, the uterus is somewhat enlarged and may give the sensation of a pouch filled with a fluid. Unfortunately there is very little definite information to be gained by the physical examination of the patient. In cases where the Fallopian tubes are coincidentally involved, one derives most information from the condition of the tubes. If the tubes were always involved when the uterus was the seat of tuberculous infection, the problem would be greatly simplified. As a matter of fact, tuberculosis of the Fallopian tubes occurred in 85 cases of the 146 collected, so one is not permitted to dismiss a diagnosis of tuberculous invasion of the uterus because the Fallopian tubes appear normal.

The pathology of cases of tuberculosis of the uterus varies considerably according to the type of the disease present. The ulcerative type with extensive destruction of the uterine mucosa, at times

even to complete destruction, is the type of the disease most commonly found. Invasion of the myometrium is somewhat less rare than the miliary, but considerably less frequent than the ulcerative type. The peritoneal form of the disease is rather more common than the miliary type, but strictly speaking is not an involvement of the uterus, but rather the local extension of a tuberculous peritonitis. It is of interest to remember that in a large percentage of the cases of tuberculosis of the uterus, the uterus is not alone involved. In the series of cases studied, the Fallopian tubes, one or both, were affected by the disease 85 times in 146 cases, or a tubal involvement of 58%. On the other hand the ovaries were tuberculous in only 35 cases, a percentage of 24. The cervix uteri seems to enjoy a rather marked degree of immunity to the development of the lesion secondarily from the uterine mucosa. Tuberculosis of the cervix is usually of primary origin, as regards the uterus, but frequently secondarily infects the uterine cavity. In the series studied, there were cervical involvement in 31 cases, a percentage of 21. The vagina is still less frequently invaded, vaginal lesions being noted in 13 cases, a percentage of 0.88. Involvement of the vulva was noted in but two cases, giving a percentage of 0.01. It must be borne in mind that in this study no attention has been paid to frank cases of tuberculosis of the cervix, unless there is simultaneous involvement of the fundus. The aspects of tuberculosis of the cervix are essentially a separate problem and are not included in this study.

The diagnosis of tuberculosis of the uterus is not usually easily made. The presence of pain, which occurs late in the course of the disease is an important factor. Not only is a generalized, indefinitely located, pelvic pain complained of, but more significant in connection with uterine tuberculosis is painful menstruation, painful defecation, and progressive constipation. Not only is there painful menstruation, but the pain also continues during the intermenstrual periods. Added to this pain are the symptoms of an inflammatory process in the reproductive organs. In fact most of the symptoms merely point toward a uterine inflammation, and most of the cases reported in the literature have been incorrectly diagnosed previous to operation. The presence of a family history of tuberculosis should be held in mind in the presence of an indefinite inflammatory process in the pelvis, and particularly when tuberculosis can be demonstrated in some other part of the body, should the physician suspect tuberculosis as being the cause of the indefinite pelvic trouble. In a few cases the presence of a tuberculous epididymitis or orchitis or of a tuberculous prostatitis in the husband, should lead the attending surgeon's mind to suspect the presence of tuberculosis of the uterus. Sterility is also a prominent symptom in women suffering with this disease, although numerous cases are on record of pregnancy occurring in tuberculous uteri and continuing to term. The diagnosis is often aided by the expulsion from the cervical canal of caseous masses of material, which should be suggestive of this condition. The cervical discharge

whether of a caseous or of a purulent nature should be stained by the acid-fast method and a search made for the presence of tubercle bacilli. In a number of cases reported in the literature, the pre-operative diagnosis was arrived at in this manner. Of course the mere finding of the acid-fast in the vaginal discharge should be confirmed by the inoculation of experimental animals with some of the suspicious material, on account of the likelihood of the presence of other members of the acid-fast group of bacilli in this locality. If the physician cannot demonstrate the bacilli in the discharge, a curettage of the uterus should be performed, and the uterine fragments should be examined microscopically for the lesions of tuberculosis, and should also be stained appropriately to demonstrate the tubercle bacillus if present. Whenever there is any strong suspicion in the physician's mind that tuberculosis is present, some of the uterine curettings should be ground up in a tissue grinder and the resulting emulsion should be injected into suitable laboratory animals. A few men have attempted to employ the tuberculin in the diagnosis of uterine tuberculosis, but their use has proven to be unsatisfactory and unreliable.

The differential diagnosis lies especially between the consideration of carcinoma of the uterus, chronic endometritis, syphilis and tuberculosis. It was noted while reviewing the literature that the differential diagnosis was very infrequently made prior to operation or autopsy. Carcinoma of the uterus or adeno-carcinoma was the most frequent diagnosis, while that of chronic endometritis was next in frequency. The diagnosis between these two conditions cannot be made except by the removal of bits of the uterine mucosa by the curette and the microscopic study of the tissue removed. The ordinary tissue examination will exclude the consideration of carcinoma or chronic endometritis on account of the different cellular picture. In the rare cases of syphilis of the uterus, the diagnosis cannot be reached so easily, and it becomes necessary to inoculate the unfixed tissue into guinea pigs or to stain the tissues by the proper technique for the demonstration of the tubercle bacillus or the *treponema pallida*.

The most frequent and the most serious of the complications of uterine tuberculosis is an active pulmonary or an active general military tuberculosis. In such cases, the uterine lesion cannot be considered as a distinct entity, but must be regarded merely as a part of the general disease picture. It is of the most serious import to the future welfare of the patient and calls for the most careful and painstaking therapeutic management. Tuberculosis of the uterus also seldom occurs without a simultaneous involvement of the Fallopian tubes. The disease in the Fallopian tubes is so closely related to the uterine infection that it has been claimed by some writers that either the Fallopian tubes are always invaded by an extension of the virus from a previously infected uterus, or that when the Fallopian tubes are primarily involved, the tuberculous disease always extends to the uterine mucosa. While the frequent association of the disease in the two organs is

extremely impressive, it hardly seems justifiable to enunciate this theory as being constant. Perhaps the most interesting complication of uterine tuberculosis occurs in connection with pregnancy occurring in a tuberculous uterus. The simultaneous occurrence of tuberculosis and the development of neoplastic growths, either benign or malignant, offers a fruitful field for study. These latter two complications are of such magnitude and importance as to deserve separate and more complete study and hence will form the basis of later studies.

The prognosis in cases of uterine tuberculosis is nearly always gloomy. In the extremely rare cases of primary tuberculous involvement of the uterus, with no extension of the process except perhaps to the Fallopian tubes, the prognosis is favorable if the entire diseased tissues be extirpated by a panhysterectomy. However in the greater number of cases, the uterine lesions are overshadowed by the gravity of a coexistent general miliary tuberculosis, in which case, operative procedures can offer no hope of permanent improvement. Under such conditions, operative procedures upon the uterus must not be undertaken lest the surgical shock and the irritation of the anesthetic should cause a violent exacerbation of the general disease and lead to a rapidly fatal outcome. It is only in the early cases of primary involvement that the physician is justified in extending the patient any hope of permanent improvement.

The treatment varies with the extent of the disease. In the cases where the uterine disease is merely a small portion of a general miliary tuberculosis, the only treatment justifiable is the dietetic and hygienic treatment usual in pulmonary tuberculosis. On the other hand when the uterus alone is involved, a thorough curettage of the uterus, with a cauterization of the curetted surfaces, offers a fair degree of success. Following the curettment, the uterus should be carefully watched, and if the disease shows signs of recurrence, a panhysterectomy should be performed. If there are signs of a simultaneous involvement of the Fallopian tubes and ovaries, a laparotomy should be performed with the removal of all diseased structures, and with the conservation of as much ovarian tissue as is consistent with reasonable expectation of freedom from recurrence. If in the course of an abdominal operation, tubercles are discovered upon the peritoneal surface of the uterus and Fallopian tubes, recovery sometimes follows the breaking up of the adhesions and flushing the cavity with hot normal saline solution, and closing the wound without drainage. The use of drainage is to be deplored, since the insertion of drainage usually permits the entrance of mixed infection with an extremely unfavorable prognosis. Moreover the presence of drainage tubes is dangerous on account of its liability to produce perforation of an intestine that contains tuberculous ulcers with a resulting general peritonitis. When the condition of the patient will permit of the shock and trauma, the only treatment to be considered seriously is hysterectomy.

CONCLUSIONS.

1. Tuberculosis of the uterine mucosa occurs

much more commonly than one would suspect from a perusal of current medical literature.

2. It occurs at all age periods, but is most common in the decade between the ages of 20 and 29 years.

3. The symptoms are disturbances of menstruation, especially metrorrhagia and dysmenorrhea, feeling of weight in the pelvis, progressive constipation, painful defecation, and pain radiating from the hypogastrium to the lumbar region, to the upper thorax, and along the perineum.

4. The differential diagnosis must be made between carcinoma, chronic endometritis, and syphilis of the uterus.

5. The primary form of the disease is comparatively rare, most cases being secondary to the disease elsewhere in the body.

6. It occurs in four main types, ulcerative, miliary, interstitial and peritoneal. Of these types, the ulcerative is the most frequently found.

7. The prognosis is extremely unfavorable in all except the rare primary cases.

8. The treatment in the secondary cases must be symptomatic and supportive. In the primary cases, curettage of the uterus will result in a cure, if the disease has not invaded the Fallopian tubes. If the tubes are involved, hysterectomy must be the operation of choice. Operative procedures on the uterus, when the seat of secondary tuberculosis, are harmful and are positively contra-indicated.

DIAGNOSIS AND TREATMENT OF GLANDULAR OBSTRUCTION AT THE NECK OF BLADDER.

By LOUIS CLIVE JACOBS, M. D., San Francisco.

There are certain glandular enlargements within the posterior portion of the sphincteric orifice of the bladder that produce anatomical changes. In the last few years a number of patients have presented themselves to me complaining of a similarity of symptoms. These were male cases ranging from the ages of thirty to sixty. The symptoms were as follows:

Frequency of urination, both diurnal and nocturnal; pain and discomfort across the bladder area and in the perineum; small urinary stream; occasional referred pain to the end of the penis; occasional urgency and dysuria.

This enlargement has been described by different authors at various times and has been designated as a form of median bar obstruction. Guthrie, in 1830, spoke before the Royal College of Surgeons of this protuberance. He was followed by such men as Mercier, Civiale, Gross, D'Etiolles and others who also recognized the fact that other conditions could produce obstruction with a symptomatology thereof without an actual hypertrophy of the prostate. In more recent years our contemporaries have demonstrated histologically that this area of the bladder was composed of glandular tissue separate from the prostate gland, so that today the consensus of opinion is that there are two types of median bar obstruction; a fibrous and a glandular form.

The purpose of this summary is to emphasize the glandular variety. The cases, which I have

examined, diagnosed and treated, are of similar diagnostic import. There is swelling of the median posterior portion of the sphincter ring, with a bulging within the sphincter more prominent intraurethra than intravesically, thereby producing a deep post-montem space. This bulging unless it be the median lobe of the prostate in its incipient enlargement, then undoubtedly it is an enlarged subcervical or Albarrans gland. On rectal examination, the prostate is negative.

Lowsley, in his original research of the histology and gross anatomy of the bladder, found a number of tubules in the posterior urethra which have a tendency to hypertrophy and grow within the sphincter. These he designates as subcervical or glands of Albarrans; and mentions that they grow back within the sphincter, and that structurally they differ from prostatic tubules in a number of important details. He says:

"There is not a differentiating layer of muscular and connective tissue around them. The mucosa is composed of two or three layers of low columnar or cuboidal epithelial cells placed on a felt-like basement membrane. The nuclei are usually in the center of these cells and almost never occur near their bases as they do in the cylindrical cells of the prostatic mucosa. The lumina are small and usually have a regular outline and rarely have an irregular outline with finger-like projections as do the prostatic tubules."

In other words there is glandular hyperplasia and actual increase of glandular tubules. He finds that in 350 post mortem specimens, twenty-five per cent. in patients over thirty years of age had an enlargement of this subcervical group, with or without prostatic enlargement. Randal, in 300 autopsies, shows eighteen per cent. in which there was median bar formation, of which he mentions the glandular type, which occurs entirely apart from any generalized prostatic hypertrophy. The occurrence of this condition is so frequent that we must ask ourselves as to its origin.

Ciechanowski stated that the prostatic hypertrophy was due to inflammatory or gonorrhoeal origin, but this has been rejected by a majority of other observers. Any condition which would cause an enlargement of the prostate gland would undoubtedly produce glandular enlargement, and in this category we might mention traumatism, long continued indulgence in venereal excesses, frequent instrumentation in the prostatic urethra or simple adenomatous hypertrophies.

R. Greene says that in all specimens of prostatic hypertrophy studied, inflammatory changes were evident, and in the acute cases evidence was present of extension from the posterior urethra.

Cases which have been subjected to the punch operation and portions of tissue examined at once bear out these findings. Apparently in most cases, then, hypertrophy was a direct result of inflammatory changes as shown by a hyperplasia of the connective and glandular tissues; also some muscular atrophy and cell infiltration, and this agrees with the opinion of Ciechanowski that most cases are inflammatory in origin.

In my series of cases some gave a history of having had gonorrhoea, some lues, some had been subjected to considerable urethral instrumentation for supposed stricture, two had prolonged phosphaturia and another case had a small calculus.

The diagnosis and treatment of these cases is only possible by means of a visual examination. This necessitates a close inspection with very careful orientation of the sphincteric orifice, post montem space and the deep urethra.

We are unquestionably dealing with a glandular enlargement and it is not of sufficient importance to the surgeon or to the patient whether he is dealing with a subcervical or a prostatic variety, but we can easily assume that these cases, if they go untreated, will come back to us in later life with large hypertrophies and will demand that we excise a large tumor mass from the sphincteric orifice. We can all conceive how this glandular affair can grow larger and larger, produce complications such as would follow any prostatic hypertrophy, finally necessitating operative procedure. To guard against this, I have followed the treatment of Bugbee, who advocates fulguration.

When a patient presents himself complaining of the symptoms which I have already enumerated and his urological history carefully taken, his urine examined, and the amount of residual noted, I cystourethroscope him with the straight close vision instrument of McCarthy. The sphincteric margin is carefully studied for bulgings.

The majority of my cases revealed a small bulging of the lower border or floor of the sphincter in the median line. There was some deformity of the trigon, with prominent inter-ureteric ridge close to and in back of the trigon. This swelling differs from that of the large prostatic protuberance inasmuch as it is smaller, more regular in outline and there is no lateral enlargement. Hence this gives a picture of a depression on both sides. With this swelling it would be hard to differentiate between small median lobe of the prostate and an Albarrans Gland enlargement. But on withdrawing the cystourethroscope, there is an abrupt declivity into the posterior urethra; and on withdrawing the instrument, a large, glandular hypertrophy of the verumontanum is often encountered.

The most successful method of treating these patients is by fulguration and I am partial to the D'Arsonval or bipolar current. One wire running from the battery to the cystourethroscope, which is interrupted by means of a foot switch, another wire runs from the other terminal on the battery to a large moist pad, which is held by the patient over his abdomen. A current of about 300 milliamperes is used and by the spark-gap regulated to three milliamperes in length; this carries a fairly strong current without being painful.

With the McCarthy cystourethroscope, I insert a small, insulated electrode. The proximal end is connected with the battery and the distal end placed in contact with the glandular enlargement. With the stop-cock on the instrument open, con-

stant irrigation is permitted, so that when the current is turned on by means of the foot-switch, the bubbles which form on the desiccated mucosa that accumulates is not allowed to obstruct the field. By gently manipulating the instrument and electrode simultaneously, a "V" shaped cut is made through the glandular enlargement. The entire procedure takes but a few minutes. It is no more painful than the passage of an ordinary sound. No anesthesia is necessary, and the entire procedure can be carried out in an ordinary urological office. The only preparatory and after treatment required is urotropin to keep the urine aseptic. If there are pus cells present in the urine, previous to the operative procedure, there is apt to be an acute cystitis for three or four days; but with urotropin and daily irrigations of the bladder, it subsides. However, the larger majority of cases are not followed by cystitis, although the patient may possibly pass some blood in his urine probably a few days afterwards.

In some cases, it is necessary to fulgurate two or three times at intervals of two weeks in order to produce a result. But I have never found it necessary, as yet, to fulgurate more than three times. I have had two recurrences, one six months following the first treatment. I refulgurated him at the present date, six months later; and there is no sign of recurrence. In the other case, recurrence came twelve months later, and I am about to refulgurate him. These two cases are both luetic, and the latter one has a relaxed sphincteric orifice, and I believe that the bulging in its mid portion is due to a falling away of the laterals, giving one the impression of a raised median obstruction. This patient has a cerebro-spinal lues.

Examination a few weeks after fulguration shows ordinarily a swelling of the lateral prostatic lobes, due to edema, as a result of the burning; but this soon subsides, and a later examination reveals a normal orifice.

The fulgurating current undoubtedly penetrates through the mucosa into the glandular structure, causing contracture and shrinkage with destruction of tissue, and it is advisable not to burn too deeply or too much at the first application, but have your patient return in two weeks for further observation or treatment if necessary. It is advisable to fill the bladder with boric acid solution before withdrawing the instrument, as this tends to lessen the discomfort of the first urination, and at the same time is possibly beneficial because of its antiseptic effect.

The following cases illustrate the procedure:

Mr. J. S., age 42, married, machinist, complains of frequency four times each night and eight times during the day; pain across the bladder, especially before urination; also some pain across the right hip. Past history: gonorrhoea seventeen years ago, sore on penis twenty-five years ago. One and one-half ounces of residual urine. Urine examination showed few pus cells. Wassermann reports from two different laboratories negative. Prevocative Wassermann negative. Rectal examination: prostate not enlarged, left vesicle indurated. Cystoscopic picture: trabeculation of bladder wall, with prominent eminence at the neck of

the bladder, marked declivity into the posterior urethra.

On March 3, 1917, burned a "V" shaped piece from the apex of the glandular enlargement. On April 2, 1917, a re-examination showed a much shrunken scarified area and the patient's symptoms had disappeared.

Mr. A. M., age 46, married, merchant, family and previous histories negative, venereal denied, but had previously been treated for stricture of the urethra. Wassermann negative, urine examination showed occasional leucocytes; presented himself complaining of burning before urination, urgency, pain across the small of the back, frequency six times during day and three times at night. Symptoms had come on gradually, though four years previously, had gradual inability to urinate, which condition improved under treatment with sounds. Present examination on 2nd day of August, 1917: 24 F. catheter passed and 7 c.c. of residual urine noted. Cystoscopic examination revealed a median protuberance at the neck of the bladder and a large verumontanum, with some congestion of the trigon. Catheterized urine from kidneys normal. Functional tests normal. Patient fulgurated on August 23rd, which was followed for three days with fever and chills. On August 30th recystourethroscoped and a large white scar on the apex of the median portion was visible. September 4th, patient passed blood and the feeling of urgency was more marked. September 6th, examination showed a whitish slough. On October 17th, the patient felt entirely well and cystoscopic picture showed no median bar present, but a "V" shaped sulcus at neck of the bladder and slight deformity and swelling of lateral prostatic lobes. On December 4th, patient felt entirely cured, no urgency, no difficulty in urination, no pain in back, no pus in the urine and no residual.

Conclusions.

1. There are a number of median bar obstructions at the neck of the bladder, which are of the glandular variety.
2. The glandular type are either enlarged median lobe of the prostate or Albarrans glands.
3. All of these cases can be relieved and the majority of them cured, by means of the fulgurating current.

RECURRENCE OF STONE IN THE KIDNEY AFTER OPERATION.

By W. P. WILLARD, M. D., San Francisco.

The frequency with which stones reform in kidneys, from which stones have been removed, is a matter of great importance to patients having the stone-forming tendency.

From my experience patients are not informed of the likelihood of stone recurrence and are surprised that a second operation is necessary for the same condition for which they had been before operated upon.

It is hard to find any useful statistics on the recurrence of renal calculi, as it is impossible to tell from symptoms, or lack of symptoms, if there has been a recurrence. Systematic X-ray examinations are not made, as a rule, after operations and this means of diagnosis is comparatively recent.

Hugh Cabot collected a series of sixty-six cases of stone in the kidney, which were followed after operation by X-ray examinations, thirty-four, or fifty per cent., of these were well and thirty two, or forty-nine per cent., had had stone recurrence.

Thirty cases of nephrotomy showed a recurrence in fifty-six per cent.

Thirty-three pyelotomies showed fifty-one per cent. recurrence.

Twelve nephrectomies showed stone formation in the other kidney in one case.

These figures show that we may have an unknown condition in individuals which causes stone formation and also that in the kidneys themselves conditions exist that influence formation.

Cabot thinks that infection of the kidney does not produce any greater liability to recurrence of stone than it does in the primary formation of stone.

This may be true, but it seems to me that the cause of infection, or the means that continues the infection after the stone is removed, is a potent factor. This, as a rule, is due to the lack of proper drainage either in the pelvis or in the kidney proper, from tissue destruction. This would also apply to the length of time the stone had been in the kidney. If a large area of tissue had been destroyed and the cavity drains well, there is less likelihood of stone formation than there would be in a small cavity, which was poorly drained.

The fact that more stones recur in patients under thirty-five than over does not upset this idea of drainage, because the stone-forming tendency is also greater at that time of life.

Diet and medication seem to have little effect in preventing recurrence of renal calculi. Most authors prescribe diets, mineral waters and various drugs, all of which have no specific effect, but are such that tend to aid the digestive and eliminative processes. As this is a matter of years and not a few months, if we are to derive any benefit at all it is well to regulate the habits of the individual in as simple a way as possible, or he will quickly discard your restrictions.

It is well to have the patient keep in as good a condition of health as possible by eating a plain mixed diet, avoiding alcoholics or too much tea or coffee, taking regular exercise and drinking plenty of water.

At the time of operation for renal calculi, we should ascertain, if possible, in case of pelvic stone, if any condition exists that prevents the pelvis from emptying freely. This may be due to ureteral kinking from a movable kidney; a constriction of the ureter or pressure from an aberrant vessel.

In the kidney the cavities, left after the removal of calculi, should be opened widely into the pelvis so that the urine readily drains from them.

After operations I have, in a few cases, lavaged the pelvis after the patients had recovered from their operation. This certainly hastens the clearing of the urine where there has been infection, but whether it has any effect in preventing stone recurrence, I cannot state.

It is a question at times whether we should again operate on some of these patients.

I have recently seen a man over fifty who had four years ago several calculi removed from one kidney. These had caused considerable destruction of the parenchyma. He had, and has, a high blood pressure and is not a good subject for surgery, being months in recovering from the effects of his

operation. At present he has again several calculi in the kidney, but the function of this organ is almost as good as its fellow and the man is feeling well. I have advised him to be under observation, but unless impelling symptoms appear, not to be operated upon.

We should after an operation for renal calculi, impress upon our patients the possibility of stones recurring and the necessity of his keeping under observation. X-ray examinations should be made from time to time and the occasional examination of the urine and the lack of symptoms should not be relied upon.

We should, in operating, try to do so in such a way that we do not leave a large amount of scar tissue. Keep in mind the possibility of a second operation.

The use of rubber drainage tubes, or prolonged drainage with much scar tissue resulting, is a thing that can be avoided by seeing that the urine can drain freely into the bladder and after treatment through the ureteral catheter if necessary.

I recently removed a kidney from which a calculus was taken two years ago. The wound was drained by means of tubes and a sinus persisted after their removal, due to a constriction in the ureter that was not recognized. In order to get the kidney out, I had to dissect it from a large mass of scar tissue which was everywhere adherent and must interfere with surrounding organs.

What I have tried to convey, in this short paper, is the necessity for a better study of cases of nephrolithiasis before, during and after operation.

Book Reviews

Surgical Clinics of Chicago. October, 1918. Vol. 2, No. 5. Published bi-monthly by W. B. Saunders Co., Philadelphia. Price, per year, \$10.

Contents—A. D. Bevan: Congenital vry neck. Desmoid tumor of abdominal wall. Epithelioma of leg. Ulcer of stomach on lesser curvature. Abscess of lung. D. N. Eisendrath: Clinical lecture on the acute abdomen. C. L. Mix: Gastric carcinoma. E. A. Printy: Demonstration of perfected technic for posterior gastro-enterostomy and for cholecystotomy. E. L. Moorhead: Exstrophy of bladder. C. M. McKenna: Clinic on genito-urinary surgery; papilloma of bladder; kidney stone; ureteral stone; acute epididymitis. T. J. Watkins: Presentation of cases treated by radium for hemorrhages due to benign causes. C. B. Reed: Obstetric clinic. C. A. Parker: Neglected club-feet. M. A. Bernstein: Teno-peritendinous transposition, improved technic for tendon transplantation. A. J. Ochsner: Bilateral Gritti-Stokes amputation.

The Human Skeleton. By Herbert Eugene Walter, Associate Professor of Biology, Brown University, with 175 illustrations and 214 pages. The Macmillan Company, New York.

The writer was much interested in reading the above work; it recalled his earlier studies in biology, and really recalled many interesting facts concerning the evolution of the skeleton, both in man and the lower animals. Everything is plainly stated and therefore will be very useful to the

beginner in biology. The book can be recommended to both students in elementary biology and laymen. F. E. B.

Manual of Vital Function Testing Methods and Their Interpretation. By Wilfred M. Barton, M. D. Second revised and enlarged edition. Boston: Richard G. Badger. 1917. Price \$1.50.

In this valuable little compilation the author aims to present the more recent functional methods for studying the more important organs—the liver, kidneys, heart, pancreas and ductless glands. The wide interest which clinicians are now taking in the study of the functional pathology of disease, as opposed to the control of clinical work by the method of pathological anatomy, gives such a work as this more than a timely interest. The author has attempted to describe most of the important tests presented in modern medical literature, but it is fair to say that not all of the numerous functional tests described in medical periodicals and summarized in this book have proven of real value. Indeed, only a few have stood the test of time. The value of the work would have been materially enhanced had the author better sifted his material and, of the numerous methods described, laid stress upon those alone which have proved of real value in clinical diagnosis.

S. H. H.

Clinical Diagnosis. A Manual of Laboratory Methods. By James Campbell Todd, M. D., Professor of Pathology, University of Colorado. Fourth edition, revised and reset. 12 mo. of 687 pages with 232 text illustrations and 12 colored plates. Philadelphia and London: W. B. Saunders Company. 1918. Cloth, \$3.00 net.

Todd's laboratory manual, now in its fourth revision, is a book especially intended for students' and physicians' laboratory use, and to this end meets all requirements. It is not a comprehensive laboratory text-book. The author has selected usually the best and simplest methods and these are presented in sufficient detail to be made use of by those who have not had any considerable degree of laboratory training. Refinements of older tests are frequently noted and certain newer tests, such as the concentration method for malarial parasite, urobilin determination and the mastic spinal fluid test are included. The introductory chapter on the use of the microscope is to be especially commended. The physician who interests himself in laboratory procedures will find this little volume of considerable assistance.

E. A. V.

Dispensaries: Their Management and Development. By Michael M. Davis, Jr., and Andrew R. Warner. New York: Macmillan Company.

This book is a notable contribution to the modern literature of medicine and sociology. The subject is treated with thoroughness and broadness, and in a style which makes it accessible not only to the medically-trained man but to every person who seeks information in the far-reaching changes which are taking place at present in the medical profession the world over. The "Dispensary" is discussed in this book since its early incipency in England until its latest and fullest development in this country. Nothing is lacking in this volume: The aim and purpose of the dispensary is discussed; admirable building plans skilfully presented; detailed suggestions in regard to the organization and conduct of the clinic elaborately dealt with, and the establishment and maintenance of a social-service department in conjunction with the clinic fully explained. It is a book worth while reading in these days of social reconstruction.

A. G.

Medical Clinics of Chicago. Volume 2, Number 1 (July, 1918). Octavo of 311 pages, 57 illustrations. Philadelphia and London: W. B. Saun-

ders Company, 1918. Published bi-monthly.

Price per year: Paper, \$10.00; Cloth, \$14.00.

Contents.—Frank S. Meara: Hyperpiesia of Clifford Allbutt. William H. Park: Practical immunization against diphtheria. Frederick Tilney: Wilson's disease. W. L. Niles: Subacute non-tubercular pulmonary infection. C. B. Slade: Relation of pulmonary tuberculosis to general practice. E. Libman: Clinical features of subacute streptococcus endocarditis in the bacterial stage. Thos. F. Reilly: Minor and misleading early symptoms of disease of heart and circulation. R. G. Snyder: Discussion of three unusual cases of aneurysm of thoracic aorta. W. J. Heimann: Relation of internal disturbances to dermatologic conditions. M. H. Bass: Cutaneous manifestations of acute rheumatic fever in childhood. O. M. Schloss: Acetone body acidosis in children. J. B. Neal: Epidemic meningitis. B. B. Crohn: Clinical conditions characterized by obstructive jaundice. S. P. Goodhart: Primary myopathies and their endocrine relationship. R. Ottenberg: Survey of hemorrhagic diseases with especial reference to blood findings.

Mammalian Dentition. By T. Wingate Todd. 290 p. 100 illustrations. St. Louis: Mosby. 1918. Price, \$3.00.

The author covers the salient features of mammalian odontologic evolution in a remarkably concise and pleasingly lucid style. He refers to his book, in the preface, as "a simple introduction to the study of teeth," but the volume is by no means an elementary one. The student should have a knowledge of palaeontology and vertebrate anatomy in order to read the work understandingly. Professor Todd displays a wide knowledge of his subject; in fact, his capacity for concise expression indicates extensive research and comprehensive understanding. The arrangement of the book is very satisfactory. A general introduction is followed by a consideration of mammalian genesis. The early study of the marsupialia as presenting adaptations to variations in dietary habits within a single order, is a great help to the evolutionary concept. The insectivores and primates are next considered; especially as leading up to Homo, in whom, naturally, our interest centers. The other orders such as carnivore, ungulate, etc., follow. Considerable attention is given the deciduous dentition, which is an important feature, as the milk teeth are undoubtedly of great evolutionary significance. Professor Todd has presented interesting material for thought in his remarks concerning the premolar analogy theory, and the specialization of the African, etc. I regret that the pressure of other duties has not permitted me the opportunity to give this work the close study and consideration that it merits, but I have added the volume to my library and look forward to the time when I can become more closely acquainted with it. It is well written, copiously illustrated, with excellent photographs and of an interesting style. It will be of particular interest to dentists.

F. V. S.

Correspondence

PHYSICIANS IN INDUSTRIAL PRACTICE.

Harrisburg, Pa., Dec. 23, 1918.

To the Editor:—Will you kindly call attention in the next issue of your journal to the fact that Dr. Francis D. Patterson, Chief, Division of Industrial Hygiene and Engineering, Department of Labor and Industry, Harrisburg, Pa., is desirous of obtaining a complete list of all physicians engaged in the practice of industrial medicine?

It has been the practice of this department to hold semi-annual conferences of industrial physicians and surgeons for several years. These con-

ferences are well attended, and a great deal of valuable matter is presented in the discussions. In order to reach all physicians interested it is desirable to have their names upon our mailing list. The next conference will be held early in 1919, and it is, therefore, essential that the names and addresses of all industrial physicians and surgeons be in my hands as soon as possible after January 1st.

Very sincerely yours,

FRANCIS D. PATTERSON,
Chief, Division of Hygiene, Department of Labor
and Industry, Bureau of Inspection, Commonwealth of Pennsylvania.

DISPOSAL OF EXCRETA ON RAILROADS.

Richmond, Cal., Dec. 23, 1918.

To the Editor:—In the last number of the State Journal, I was very much pleased and interested in an editorial you have there regarding the disposal of excreta on railroad coaches.

That is a subject that interested me just about ten years ago, as shown by the enclosed patent I got out at that time just for that very purpose, the disposal of car excreta and also the further benefit of being able to use the toilet while the car is within the city limits of any city, for as you know, now, whenever the car is within a city, the toilet door is locked and no matter how badly a man, woman or child may need a toilet, they are not permitted to enter.

I showed the plan to the Pullman people and several others interested and they all considered it a very valuable invention, but there was no law in force regarding the disposal of excreta from trains and they will not install anything unless they have to, so I have just waited for the time when the people would wake up to the fact that something should be done to protect people from that exposure and I am very glad that you took it up and hope that it will bear some fruit.

Very truly yours,

CHAS. R. BLAKE, M. D.,
Commissioner of Health.

County Societies

CONTRA COSTA COUNTY.

The Contra Costa County Medical Society held its regular annual meeting and banquet at the Hotel Oakland on the evening of December 14, 1918. The officers elected to serve the Society for 1919 were: Dr. W. E. Cunningham of Richmond, President; Dr. G. M. O'Malley of Crockett, Vice-President; Dr. P. C. Campbell of Richmond, Secretary-Treasurer; Dr. P. C. Campbell of Richmond, County Associate Editor.

Those present were: Dr. and Mrs. W. E. Cunningham, Dr. and Mrs. C. R. Leech, Dr. and Mrs. G. M. O'Malley, Dr. and Mrs. Clyde T. Wetmore, Dr. and Mrs. P. C. Campbell, Drs. E. E. Johnson and H. L. Carpenter, Mrs. Jennie Sharpoph, Mr. Connors.

After the banquet was served the party repaired to the Orpheum Theater where a most delightful and entertaining evening was spent.

LOS ANGELES COUNTY.

December 5th, 1918. Meeting of the Los Angeles County Medical Association.

The regular meeting was held at the usual time and place with Dr. Duffield presiding.

The program consisted of an informal Symposium on some phases of Influenza Epidemic.

Dr. Duffield opened by saying that we had the longest vacation in the history of the society. We had the largest state meeting, and we had war meetings. It is six months since we met the last

time. In September the members were all very busy about the war, then came the epidemic and an unofficial request by the health officer, Dr. Powers, to meet at the Normal Center. We tried to reach every one by phone and the meeting was fairly well attended.

Dr. Luther M. Powers spoke on "Some Observations and Experiences of the Health Commission."

Dr. Powers said:

"The disease was brought from Arizona, New Mexico and other eastern points to the various hotels and other places in the city of Los Angeles, during the latter part of September and the first of October; and after the 15th of September a training ship from San Francisco came into San Pedro harbor with a complement of about 700, 400 of whom were suffering from influenza. Two hundred were given shore leave and visited the Naval Training Station at San Pedro, infecting the same. Also many men working in the shipyards became infected, who lived in the city of Los Angeles.

After a consultation with the Mayor a citizens' advisory committee was called on Oct. 10th and from that committee the Mayor selected seven members as advisory to the Health Commissioner.

The schools, theaters, moving picture shows, churches, etc., were closed down on the 11th. The question of closing the schools was brought up in the Advisory Committee, and as our schools were not sufficiently inspected we thought best to close the public schools.

The peak of the disease was reached October 30th.

The question of making it mandatory or compulsory to wear masks was discussed, and because of so much opposition it was thought best not to undertake making the arrest of so many people because of the uncertain value of the wearing of the mask at that time. It was thought not commensurate with the amount of possible good which might result therefrom.

The Health Commissioner telegraphed the Rockefeller Institute, Dr. W. H. Parks, A. C. Rosenau, and others in regards to the value of vaccine, and was informed on every occasion that it was only experimental. We established three stations in the city, one at the Health Office, one in Boyle Heights, and one at the University, for free administration of vaccine; and also furnished any physician who was willing to give vaccine, a supply of the Leary and the Cutter, and also after receiving it, the Rosenau. The Leary vaccine was stopped after a short time because it was learned that it had proven of no value. We found these vaccines did no harm."

Dr. George L. Cole, chairman of the medical advisory board of the Health Commissioner, gave a paper entitled "Some Observations from the Work of the Medical Advisory Board." This will appear in the March issue of the Journal.

Other papers and discussion followed.

The Los Angeles County Medical Association.

Met in the Auditorium of the Normal Hill Center, Monday, Dec. 23 at 8 P. M.

Dr. Etienne Burnet, attaché of the Medical Staff of the French Army and a member of a Scientific Mission sent by the French Government to visit the larger Universities of the United States, was introduced by Lucien N. Brunswig to Dr. McArthur, the chairman, and to members of the society.

Dr. McArthur in well chosen remarks of welcome made every one feel at home by his kindly humor and wit. He also referred to the chief speaker as the greatest pupil of Louis Pasteur and the president of the Pasteur Institute. Dr.

Burnet entered the war in the Medical Corps and was sent to save the remnant of the Serbian Army of which 100,000 were restored to the fighting front, supported by the French and British allies. The beginning of the end can be traced to the science of bacteriology. He cured the Serbians from contagious diseases.

Dr. Burnet said that it was difficult for him to express the suffering of the army. He thinks war teaches peace. He was an army doctor of a cavalry division and that ignorance and anxiety possessed him. He understood the movements of the troops. In 1914 the war was the only thing that interested him. He felt like a scene-shifter in a place he knows nothing about, actors passing in and out. The Germans had invaded Belgium and the French Alsace. There was a great movement from the east to the north. There were long marches and sleepless nights. They were in a state of semi-somnambulism. The first dressing stations were in barns. Then came a whirlpool of sensations. Aug. 20, 1916, the division was beaten back, but there was no disorder. He wondered whether the events of 1870 would be repeated. The mental attitude of the soldier is one of inquiry. The soldiers seemed to him too much occupied with food and sleep, but they were making history. At the retreat at the Battle of the Marne he had a conversation with the staff officers. Concentration took place. The actual fighting man knows nothing for certain. It is intuition with him. Then came the most desperate move of the war. "They shall not break through!" During the Battle of Isburg it seemed darkest, but they realized the value of their sacrifice. The moral force in the high and the low was made of the same stuff. The French Army possessed that moral force. A rapid evolution took place. The majority went to war without conscription. It was a civic army of armed citizens. There was resignation and the desire to save the human ideals. In 1915 the question was, "Can they endure a second winter?" It will not be with the same men. He was hunting for wounded men where a single shell felled 50 of them. Watch and wait,—the trench warfare. As a bacteriologist he was not to participate. There was a feeling that nature enveloped all: the cold, rain, smiling landscape could not suppress them. At nights there was a feeling of being far away from civilization and even from war. There was mystery,—a dividing space of 200 yards wide on either side of the line, two utterly different conceptions of the war. Many a soldier musing must have felt when firing stopped that a step beyond the line meant death but it must be crossed.

July of 1916 he was sent to Macedonia at the exciting moment of transformation. The eastern army became a large one of heterogeneous people, French, English, Italian, and Americans, white and black. It was hard for all. Villages were ruined. Letters were delayed. In 1915, Serbia was invaded and the army fell back in winter over Albania. There was typhoid and dysentery. Harshness, etc., was used as food. There were thaws and rain at the end of the winter and many perished by the roadside. Hospitals were improvised. It rained and the huts had no floors. Many days before the men could be examined some were hunting for vermin. Intestinal infection was most prevalent; cholera. There was an enormous mortality of 200 per day in each hospital. There was not time to enshroud. 120,000 men were cremated. "God shall wipe away all tears from their eyes."

The horrors of the war were then shown on the screen.

Dr. Burnet regretted not having come in contact with the American Army. He had met American boys cheerfully going to the front. He attended meetings of American doctors and of the Red Cross Association, and said that he shares the honor with his wife who is a Red Cross nurse.

In speaking to hundreds of American boys he heard them lament that they had not been at the front. He thought if every one could see what he has witnessed there would be no more wars. I am glad their lives were spared.

The last meeting of the Los Angeles County Medical Association for 1918 took place in Hamburger's cafe at 8:15 P. M., Dec. 19.

Dr. Wm. Duffield presided and gave his farewell address in a masterly manner, for this, perhaps, the most eventful year of our organization.

The election meetings once a year, are never well attended, there being no scientific program, but they are very important for the welfare of the association and all voting members should make an extra effort to be present.

Dr. Duffield, on calling for the report of the retiring secretary-treasurer, Dr. George H. Kress, voiced a beautiful tribute in speaking of Dr. Kress's untiring efforts these many years in building up the society from a small organization to one of the biggest and most efficient in the country. Every member present responded in giving a hearty ovation, recognizing and appreciating the justice of the president's remarks.

Dr. Fitch C. E. Mattison moved that the society give a token to Dr. Kress as a reminder of our appreciation and esteem. It carried with great eclat.

Dr. Kress's report showed the value of membership in the society as will appear elsewhere in full.

Dr. Duffield, in calling on the chairman of the various committees expressed his appreciation of the work done and the help given him during his administration.

Dr. Nannie C. Dunsmoor, chairman of the election tellers, reported the result of the vote as follows: President, Dr. Wm. T. McArthur; Vice-President, Dr. Harvey G. McNeil; Sec.-Treas., Dr. Harlan Shoemaker; Councillors-at-Large: Dr. Wm. Duffield, Dr. Stanley P. Black, Dr. Luther M. Powers.

"Flu Situation in December."

A strict quarantine of every house in the city in which a case of influenza exists was enforced by the health authorities. The county, on recommendation of J. H. Bean, chairman of the Public Welfare Committee of the Board of Supervisors, already has declared for an individual quarantine.

Dr. Powers, city health officer, provided with a force of 14 special inspectors, and an appropriation of \$5000, announced a quarantine of influenza cases.

In order that the business interests of the city might be fully informed, first-hand, of all the facts in the influenza campaign, Mayor Woodman has appointed the following committee to cooperate actively with the health authorities and the medical advisory board: W. A. Barker, President of Barker Bros.; Watt L. Moreland, Vice-President Chamber of Commerce; J. G. Bullock, President; Wm. Chamberlain, Vice-President A. Hamburger & Son; J. M. Schneider, President J. W. Robinson Co.; Dean McCormack, of St. Paul's Pro-Cathedral, and Seth Brown, of Central Labor Council.

This committee met with the medical advisory board and Dr. Powers today for the first time. It heard the reports of the progress of the anti-flu campaign and the story of how many hundreds of houses containing influenza and pneumonia cases have been placarded with warning signs and placed under quarantine.

Dr. Powers again repeated his warning that he would cause the arrest of any physician who failed to promptly report any case of influenza or pneumonia, or in any manner delayed the establishment of an effective quarantine upon a case of either disease here.

The same warning has been issued by the county health officer, Dr. F. L. Pomeroy.

Pasadena Health Officer.

Dr. Stanley Black, for 14 years health officer of Pasadena, has been automatically removed through the abolishment of his office. Dr. J. S. Hibben, city physician, has become health officer also through the consolidation of the two offices. The four city commissioners who made him health officer after abolishing Dr. Black's office, also petitioned the State Board of Health to rescind its order to the Pasadena health officer to close the city and asked Dr. Hibben to transmit the petition to the board.

Educational Campaign.

The advisory board of the business men's committee have decided upon a campaign of education, including brief speeches by "four-minute" men in theaters and other places on the need for rigid observations for combating the flu.

News from other cities adjacent to Los Angeles showed that the authorities there also were taking strenuous steps to eliminate the disease. The Long Beach city commissioners have passed an emergency ordinance ordering a rigid quarantine, similar to that in this city upon influenza or pneumonia cases there.

Sailors Under Rules.

Stringent regulations prohibiting sailors from the U. S. Naval Reserve Training Station from entering motion-picture theaters, attending church or other places where crowds may congregate, were placed in effect Dec. 15 at the Harbor. Additional regulations requiring all sailors on liberty to wear their influenza masks at all times were promulgated. Provost guards are to be sent to the various communities with instructions to arrest violators of the regulations.

Dr. Alton D. Butterfield and Dr. F. M. Staples, of the U. S. public health service, were assigned by the government to assist Dr. Powers, and will take up their duties at once.

The quarantine and other measures taken by the health authorities, coupled with the campaign of education inaugurated by the business men's committee appointed at the suggestion of Mayor Woodman to assist in fighting the epidemic, will, it is believed, accomplish all that can be done to check the epidemic at this time.

Quarantine Effective.

Dec. 20.—According to the health department records a grand total of 39,977 cases of influenza and a grand total of 2188 deaths have been reported from Oct. 1, when the disease was first noted here, until 10 o'clock today.

GENERAL ITEMS.

To Train Wounded.

Rehabilitation and vocational training for disabled soldiers and sailors, outlined by the U. S. Government, was inaugurated Dec. 7 in Los Angeles by Dr. James C. Miller, field organizer for the Federal Board of Vocational Training, and R. T. Fisher, district vocational officer for California, Arizona and Nevada. A series of conferences were held with the Mayor and Red Cross, civic and commercial bodies' officials.

Working in conjunction with the War Risk Insurance Bureau, the civilian relief branch of the Red Cross, of the U. S. Employment Bureau and city and civic authorities, the Federal Government through its vocational training and rehabilitation divisions will care for the wounded man until he begins to recover, equip him with artificial hands, feet, or other parts of the body needed, consult with him about the field of work he most desires and is best fitted for, and then give him the training necessary to enable him to enter it with a fair chance of meeting the competition of other men in the same line.

While the training is in progress and until the man is actually placed in the position planned for him, his dependents will be cared for by the organization associated with the division of rehabilitation. The minimum of service due to the re-

habilitated men from the Federal Board is assistance in securing suitable employment.

The administrative offices for the Twelfth District will be in Room 997 Monadnock Building, San Francisco. Dr. J. D. Maddrill, of Washington, formerly of Oakland, will assist Mr. Fisher there.

PERSONALS.

Los Angeles Doctor Army Sanitarian.

Dr. Placida Gardner, of Los Angeles, was one of a committee of three that made a sanitary survey of the line of communications at the front in France, according to word received here today through the Red Cross. The other members of the committee were Captain A. J. Chelsey, of the State Board of Health of Minnesota, and Capt. P. S. Platt, of the American Red Cross Headquarters in Paris. Dr. Gardner is a member of the Stanford University unit.

Dr. Powers' Son Recovering.

Assurance that his son, Wm. M. Powers, was recovering from shrapnel wounds in the head and shoulder was received by Dr. L. M. Powers, city health commissioner. Young Powers went "over the top" with his company, L., of the 363rd regiment just before he was felled. He is convalescent in the American hospital at London.

Dr. Coffey Coming Home.

Dr. Titian Coffey is homeward bound from France, where he has been serving the Red Cross. Dr. Coffey expected to land in New York on Christmas and will immediately proceed to Los Angeles.

Dr. Bridge Continues Alien Relief Work.

There will be no halt in the work of the National Alien Enemy Relief Committee providing for the dependents of interned aliens, until final peace is declared, according to Dr. Bridge, chairman, who is spending the Christmas holidays here. The committee was created at the request of President Wilson and the funds came from Germany and Austria. Dr. Bridge states that his work would not be concluded until final peace is made.

Capt. Laubersheimer Returns.

Capt. George A. Laubersheimer, who has been in the medical service of the government, has just returned from the base hospital at Camp Crane, Allentown, Pa., having received his discharge after the armistice was signed. Capt. Laubersheimer has three nephews in the service, Kenneth A. Carey, first lieutenant, on General Pershing's staff in France; Francis Carey, second lieutenant in the light artillery, and Lester Carey, in the navy.

SACRAMENTO COUNTY.

County Hospital to Have Staff System.

The staff system of attending to the medical and surgical wants of the patients will go into effect at the Sacramento County Hospital next Monday. This system was approved unanimously at the meeting of the Sacramento Society for Medical Improvement held at the Hotel Sacramento Tuesday evening, December 10th.

It is a humanitarian measure on the part of the Society, and none of the physicians will receive pay for services. Thus the hospital patients will receive the benefit of special knowledge of medicine and surgery in all its branches, without cost.

The Physicians.

The doctors have been apportioned as follows:

Surgery—T. I. Cox, A. C. Hart, A. M. Henderson, F. Krull, W. Lindsay, R. G. Pearson, G. Wilson, E. M. Wilder, P. G. Young and J. B. Harris.
Medicine—G. P. Dillon, S. J. Wells, H. W. Strader, F. F. Gundrum, F. Scatena and B. F. Howard.

Gynecology—G. N. Drysdale, I. W. James, C. B. Jones, D. A. Kellogg, J. W. O'Brien and E. H. Pitts.

Obstetrics—G. A. Foster.

Genito-Urinary—A. A. Stern, F. X. Voisard, J. F. Sigwart, F. Grazer.

Eye, Ear, Nose and Throat—W. E. Briggs, M. W. Haworth, C. B. McKee, G. A. Spencer and H. H. Look.

Pediatrics—W. A. Beattie.

Bacteriology and Pathology—M. A. Seavey.

The X-Ray and Neurological departments will be placed in the hands of physicians who are now in the war service as soon as they return.

The following Executive Committee was chosen as part of the organization: Dr. T. J. Cox, W. E. Briggs and the resident physician. Chiefs of staff for the first quarter were chosen as follows: Surgery, Dr. J. B. Harris; Medicine, Dr. F. F. Gundrum; Gynecology, Dr. J. W. James; Obstetrics, Dr. G. A. Foster; Genito-Urinary, Dr. J. F. Sigwart; Eye, Ear, Nose and Throat, Dr. G. A. Spencer; Pediatrics, Dr. W. A. Beattie; Bacteriology, Dr. M. A. Seavey.

The physicians will work in conjunction with the interns of the hospital and the dates and periods of visits will be worked out later by the Executive Committee.

SAN DIEGO COUNTY

The San Diego County Medical Society on Dec. 10th, 1918, elected the following officers for 1919: President, Dr. Frank A. Burton; Vice-President, Dr. Charles M. Fox; Secretary, Dr. W. W. Crawford; Treasurer, Dr. F. P. Lenahan; Councillors, Dr. P. M. Carrington, Dr. E. A. Hensel and Dr. Robert Pollock; Certified Milk Commission, Dr. H. F. Andrews, Dr. Fred Baker, Dr. F. H. Mead, Dr. I. D. Webster and Dr. H. B. Wilson; Delegates, Dr. P. M. Carrington and Dr. Robert Pollock; Alternates, Dr. C. M. Fox, Dr. E. C. Mann, Dr. C. S. Owen and Dr. T. A. Parker. As this was the first election held under the new constitution, which provides for polls being open throughout the day and for registering of ballots by mail, it was quite satisfactory to find results in the shape of a large vote cast, despite the tense conditions prevailing at the time due to the influenza.

In this connection San Diego feels very much pleased over the influenza situation, as there has been an average of only 8 to 10 new cases reported for the past ten days.

On December 10th immediately following four days of rigid closure of all non-essential business and at a time when the daily number of new cases fluctuated from 160 to 200, the universal and compulsory use of the gauze mask was instituted by city ordinance. This was followed by a steady daily decrease in the number of cases reported until Dec. 24th at the expiration of the mask period there had been but six cases daily reported for the previous three days. Since that time only quarantining of infected houses has been observed and there has been practically no evidence of renewal of the epidemic's activity.

We feel that the statistics of the San Diego board of health during this recent epidemic are of distinct interest to all students of epidemiology. The necessity for opening three distinct emergency hospitals for the treatment of influenza cases during this epidemic has suggested the need of broader hospital facilities in San Diego, and already a movement is on foot to fulfill this need.

In the passing of Dr. Frederick R. Burnham, who died on Dec. 11 at the age of 65, not only San Diego community and county but the entire state has lost one of the most valuable members of its medical profession. Dr. Burnham was for years identified with the activities and counsels of the State Society and served on the State Council and on the board of medical registration and examination. In his home town he was one of its leading citizens, warmly interested in all social

and humanitarian movements. His death is mourned by thousands of friends in Southern California.

The San Diego Medical Library Association held its annual election on the evening of Dec. 19th, 1918, with the following results: President, Dr. H. F. Andrews; Vice-President, Dr. J. F. Churchill; Secretary, Dr. Robert Pollock; Treasurer, Dr. T. Coe Little; Directors, Drs. Andrews, Arnold, Burton, Carrington, Churchill, Hensel, Jennison, Kinney, Molitor, Pollock, Woodward and Yates.

It is with regret that we record the sudden and untimely death from appendicitis of Dr. John S. Herlihy, who passed away at St. Joseph's Hospital on Dec. 21, 1918.

Capt. J. F. Grant, M. C. U. S. A. Air Service, has been detailed in charge of the Research Unit at Rockwell Field, San Diego. Among other observations conducted by his unit, those upon the effects on the human heart of altitude, temperature, barometric pressure and oxygen diminution in respired air promises accurate scientific information on this important field. All applicants for government air pilots are now subjected to the most rigorous examination along these lines in conjunction with the general physical study and that of the eyes, ears and nervous system.

Capt. R. J. Pickard, M. C. U. S. A., reports himself as enjoying the intensive course for laboratory workers that the government is furnishing at Yale University.

Capt. A. E. Banks, M. C. U. S. A., has recently been promoted to his majority for especial service along sanitary lines with the A. E. F. in France.

In the sudden death of Dr. Alfred Dow Long on November 17th the San Diego medical profession loses one of its most valued members. His high standard of scholarship, his genial and optimistic nature and his identification with the best of our local ideals have combined to win for him a large circle of appreciative friends in and out of the profession. His was a personality it was a joy to meet.

The meetings of the County Medical Society have practically been suspended until our depleted ranks have overcome the present epidemic, or they become strengthened by the return of their comrades from the service.

The election of officers for both the Medical Society and the Medical Library Association take place the second week in December.

When this was written, December 9th, the influenza epidemic seems to be coming under control. This apparently is largely due to the enforcement of a rigid quarantine of all cases, the temporary closure of all places of public entertainment as well as non-essential business places, and the compulsory wearing of proper masks by all persons serving the public in any capacity, and all these visiting places of public service. Too much cannot be said in praise of the energy, intelligence and fighting spirit shown by Dr. E. P. Chartres-Martin, the city health officer, who has steadily overcome, one by one, the obstacles presented by an unenlightened public, a hostile city council, a disrupted Board of Health and the pressure of selfish commercial interests.

Dr. John C. Yates, State Councillor at Large, has recently assumed his Uncle's naval uniform and is stationed at Balboa Park.

The United Service Hospital for the families of officers and enlisted men of the army and navy is crowded to overflowing principally with obstetric cases. Influenza cases are being cared for in tents on the lawn. Steps are being taken looking toward the building at an early date of an addition to accommodate from 25 to 50 additional beds for obstetric and gynecologic patients.

SAN FRANCISCO COUNTY

During the month of December, 1918, the following meetings were held:

Tuesday, December 3rd—Section on Medicine.

1. Singultus. H. D'Arcy Power.

Tuesday, December 10th—General Meeting.

1. Nominations for 1919.
2. Legg-Perthes' disease with exhibition of patients. L. W. Ely.
3. Primary carcinoma of the lung. Report of case and presentation of pathological material. P. H. Pierson.
4. Case of malaria in a newborn baby. Millicent Cosgrave.
5. Treatment of compound fractures in civil practice. Leo Eloesser.
6. Unsatisfactory results following non-infected finger injuries in industrial accidents with special reference to amputations. R. W. Harbaugh.
7. Surgery of the prostate. O. S. Lowsley, New York.

Friday, December 13th—Special Meeting.

1. Pandemic influenza and secondary pneumonia at U. S. Army Base Hospital Camp Fremont. Major Walter V. Brem, Capt. Geo. E. Bolling and Lt. Edwin J. Casper.
2. Influenza at Letterman General Hospital. Major J. Wilson Shiels.
3. Influenza. Dr. Wm. C. Hassler.

Tuesday, December 17th—Section on Surgery.

1. Experimental cholecystitis. K. F. Meyer.
2. Some observations on defective feet. J. T. Watkins.
3. Case of primary tuberculosis of kidney. J. Craig Neel.

Notices

STANFORD MEDICAL SCHOOL.

Popular Medical Lectures, 1919, San Francisco.

Friday evening, February 7, 1919: What the War Has Taught Us In Regard to the Control of Venereal Diseases.—Dr. Lewis Michelson, State Board of Health.

Friday evening, February 21, 1919: What the War Has Taught Us In Regard to the Physical Condition of Our Young Men.—Dr. Philip Hale Pierson.

Friday evening, March 7, 1919: The Children's Year; a Reconstruction Program.—Dr. Adelaide Brown.

Friday evening, March 21, 1919: The Control of Epidemics.—Dr. William C. Hassler, San Francisco Board of Health.

THE PHYSICIAN AFTER THE WAR.

The great war is over, for which let us give thanks. In passing let it be said that no class of men have responded more promptly to the call of their country, or made greater sacrifices than the medical profession.

It has been said that great good will come out of this war, that the world will be made free and that the great sacrifices and suffering caused by it shall not have been in vain.

In the midst of the great changes taking place in every line of human endeavor, it is neither possible, nor desirable that the medical profession should escape. Radical changes are bound to come because both the doctors and the times have changed.

The doctors who are returning from this war are not the same men who went into it. They are more efficient in every way; their outlook on life is broader; they have a more charitable feeling for the short-comings of their fellow workers, and in the future there will be more co-operation and less petty jealousy and fault-finding. One great lesson the doctor has learned from the war is the value

of system and team work and it is probable that sooner or later war time developments will become the guide to medical organization.

The day of the old family practitioner is passed. Not that the general practitioner is going to perish from the face of the earth, for he will always be with us, but he will be with us as a member of a group, not as an individual. He will be associated with men who, in the larger centers, are strictly specialists, and in the smaller places the men will be associated together in the same office, and each man will select some line for which he is best fitted and give special attention to that line, not to the entire exclusion of other work, but each man of the group will be considered the authority in his community on some one thing.

By organizing in this way the men can have better offices, better equipment, more office help, and most important of all, the public will get better service. It should be possible for a patient to go to one member, of such an organization and get a complete examination and necessary treatment from any one, or all, of the group, and the financial part of the transaction would be handled by the man to whom the patient first came. There would be an agreement between the doctors as to the charge for certain services rendered and the associates would make a charge against the doctor whose patient they treated instead of against the patient, and all bills would be sent in the name of the organization rather than the individual.

This may not be an ideal plan, but the fact remains that future medicine will be organized medicine. The medical profession has not only its own problems to meet and to solve but they have a great duty in helping to solve the problems arising out of the relationship between capital and labor. One of the greatest problems of the Government at the present time is the rehabilitation of men injured in war and the placing of these men in industry, and the rehabilitation of wounded soldiers in industry offers the same problems as the replacement of men injured in industrial plants, and the latter we have with us all the time.

When you consider that there are 22,000 deaths and one-half million men injured in industry each year, it gives some idea of the importance of the problem of industrial injuries. Industrial surgery and hygiene is now in its infancy, but it will only be a short time until it will be one of the most important fields of medicine. Employers will lead in the effort to promote the welfare of those working for them, and the fact that there are today so great a number of women engaged in industry adds a new factor of great importance to this field of medicine.

The medical man in the future will be a large factor in industry. Every large concern now has a medical organization to look after the health and working condition of its employees. The organized prevention of sickness has become recognized as being as important as "Safety First" organizations for the prevention of accidents. The successful campaign for the prevention of sickness can come only through the interest of individual doctors, and to arouse this interest to the point of action is one of the objects of this department, and if the readers of this Journal will co-operate as suggested in last month's editorial, we will at least have made a beginning in this work.

THE ONLY HOPELESS CRIPPLE

By HERBERT KAUFMAN.

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How much of his body does a man need to earn a living in this year of wheels and wires? For instance: Legs are not requisite at the cigar bench; expert type-writers never look at the keys; the watchful eye of a supervisor is not hampered by the absence of arms. What with telephones, elev-

* Reprinted from "Carry On," Oct.-Nov., 1918.

ators, motor cars and like couriers and carriers, a respectable remnant of the human frame can overcome most of the handicaps of mutilation.

If the head stays intact, a missing feature or so isn't necessarily a sentence to dependence. Commonsense is a general servant and with a little coaching, can learn to substitute for any of the missing five.

We are to have so many disabled folk that the problem of their autonomy will perforce direct unprecedented attention to reclamation and re-education of industrial as well as military "blessés".

Employers will cooperate with institutions and put the maimed of the Republic on a preferential basis in such special occupations as they can demonstrate parity with normals.

Our streets shan't ring with the whine for alms—the hat holders and cup bearers already there reproach enlightenment. We should have helped them to their feet long ago. The remarkable achievements of retinkered European soldiers indicate that the only hopeless cripple is a deliberate shirker.

Vivisection Debate at the Commonwealth Club

At the monthly dinner of the Commonwealth Club of California held at the Hotel St. Francis, San Francisco, on Thursday, December 19, 1918, the subject set for discussion was "Vivisection—Is It Necessary to Medical Progress?"

After the introductory remarks of President Boynton, Dr. Wm. Ophuls, vice-chairman of the club's section on public health, read the report of the section, explaining the necessity for animal experimentation. The report was written as an answer to the "misinformation disseminated broadcast by the various anti-vivisection societies and others who are not thoroughly informed on the subject," and took up the subject briefly from the standpoint of physiology, pathology, bacteriology, and medicine. The report advised strongly against the passage of the so-called regulatory laws, such as those in force in England.

Prof. Samuel S. Maxwell, associate professor of physiology at the University of California, then read a ten-minute paper on "The Necessity of Vivisection in Physiological Research," summing his statements in the conclusion that "it is not too much to say in general that prohibition of vivisection at the present time would virtually end progress in physiological service."

Prof. Karl F. Meyer, director of the George Williams Hooper Foundation for Medical Research, followed with a strong presentation of his experience in dealing with epidemic diseases of animals and man in Central Africa, and contrasted the saving of human and animal life through such experiments with the terrible death rate where no such treatment was followed.

Dr. Ray Lyman Wilbur, chairman of the club's section on public health, closed the presentation on behalf of the report with a brilliant address.

Mme. C. E. Grosjean was then called upon for a presentation of the views of the anti-vivisectionists. She argued that vivisection was unnecessary, that its results were ineffective and often harmful, and that the practice was cruel and tended to make its practitioners callous to suffering. She digressed from the subject to close with a strong protest against the use of aspirin in the treatment of influenza.

The subject was then thrown open to general debate under the five-minute rule and Dr. Mayo Newhall, Dr. Emmet Rixford, and others spoke for the general conclusions of the report, while B. L. McHenry and Mrs. E. C. Harrington spoke against it. A delegation of members of the Legislature was present.

Harrison Law

NARCOTICS FOR INSTITUTIONS.

Where there is no pharmacy connected with a hospital, and all drugs administered to patients are obtained through prescriptions written by a visiting physician, no narcotic record should be required of the hospital, according to a ruling of the Commissioner of Internal Revenue, received by Collector Justus S. Wardell.

The Collector is further advised that the disposition of narcotic drugs obtained through order forms only is required of such an institution, that is to say, if drugs administered to a patient within the hospital are taken from the drug stock of that institution, an accurate record must be kept of their disposition, in order to check up the records as shown by the inventory and official order forms on file.

Any narcotics left at such an institution by a patient for whose use they were prescribed by a visiting physician should be taken up on the inventory of the hospital, and a record kept of their disposition in event the patient is discharged. Narcotic drugs brought into a hospital by a visiting physician for a particular patient to be administered by a nurse under the direction of the physician, should be made a matter of record by the physician and not by the hospital, except where unused drugs come into the possession of the institution as indicated above.

HARRISON NARCOTIC LAW INTERPRETED.

For the information of registered dealers in and dispensers of narcotic drugs under the provisions of the Harrison Narcotic Law, Collector of Internal Revenue Justus S. Wardell calls attention to Treasury Decision No. 2200. In this decision the words "dispensed," "distributed," "prescribed" used in the Harrison Narcotic Law are construed.

The quantity of any of the Narcotic Drugs that may be dispensed or prescribed at one time, is discussed. The decision also states the requirement of the law, in the matter of the treatment of addicts or habits to effect a cure and of patients suffering from an incurable or chronic disease. The latter part of the decision states what are the duties of registered dealers in these matters.

The following is a copy of Treasury Decision 2200:

"The Act of December 17, 1914, provides that a physician, dentist, or veterinary surgeon registered under the provisions of the law may dispense or prescribe any of the narcotic drugs coming within its scope to patients upon whom he shall 'personally attend' and 'in the course of his professional practice only.'

"This office construes the words 'dispensed,' 'distributed,' or 'prescribed,' used in the act, as synonymous, and that a physician, dentist, or veterinary surgeon 'dispenses' within the meaning of the law when he writes a prescription calling for any of the narcotic drugs to be filled by a registered dealer.

"While the law does not limit or state the quantity of any of the narcotic drugs that may be so dispensed or prescribed at one time, it does provide that it shall be unlawful to obtain by means of order forms any of the aforesaid drugs for any purpose other than the use, sale, or distribution thereof in the 'conduct of a lawful business in said drugs or in the legitimate practice of his profession.' Further, that all preparations and remedies containing narcotic drugs coming within the scope of this act are 'sold, distributed, given away, dispensed, or possessed as medicines and not for the purpose of evading the intentions and provisions of this act,' and it is further provided that it shall be

unlawful for any person not registered to have in his possession or under his control any of the drugs, preparations, or remedies 'which have not been prescribed in good faith by a physician, dentist, or veterinary surgeon registered under the act.'

"Therefore, where a physician, dentist, or veterinarian prescribes any of the aforesaid drugs in a quantity more than is apparently necessary to meet the immediate needs of a patient in the ordinary case, or where it is for the treatment of an addict or habitue to effect a cure, or for a patient suffering from an incurable or chronic disease, such physician, dentist, or veterinary surgeon should indicate on the prescription the purpose for which the unusual quantity of the drug so prescribed is to be used. In cases of treatment of addicts these prescriptions should show the good faith of the physician in the legitimate practice of his profession by a decreasing dosage or reduction of the quantity prescribed from time to time, while, on the other hand, in cases of chronic or incurable diseases such prescriptions might show an ascending dosage or increased quantity. Registered dealers filling such prescriptions should assure themselves that the drugs are prescribed in good faith for the purpose indicated thereon, and, if there is reason to suspect that the prescriptions are written for the purpose of evading the intentions of the law, such dealers should refuse to fill same."

The Red Cross and the Disabled Soldier or Sailor. *

The Federal Board for Vocational Education has entered into a special arrangement of co-operation with the American Red Cross in connection with the after-care of disabled soldiers and sailors and their families. The Federal Board is charged by the laws of June 28, 1918, with the vocational training and replacement in industry of discharged disabled soldiers, and with the general supervision of their re-establishment in civilian life. It is believed that the comprehensive program of the Government for the assistance of such men cannot be applied with the best results unless, during his period of training and the first trying weeks of work in a new position, the man's mind is relieved of every occasion for concern about the welfare of his family. In other words, the morale of the disabled soldier or sailor must be supported through the influence of his family during the readjustment to civil life just as effectively as during the time of active military service.

The Red Cross throughout the war has conducted through its 4,000 local home service sections and 50,000 trained volunteer workers a nationwide effort to insure the well-being of every soldier's family by providing timely and practical information, helping to procure government allotments and allowances, furnishing any necessary medical or legal advice, giving financial relief when needed, and in general assisting in a neighborly, sympathetic manner in the solution of every difficulty which might arise through the absence of the head of the family.

From the beginning the Red Cross has been prepared to continue this service to the families of men when discharged and to the men themselves for as long a period as might be necessary to smooth the path of their readjustment to normal, civilian life. In accordance with its fundamental purpose and its charter, however, the Red Cross looks to the Federal Government to assume, as it now has done, the nation's responsibility to provide medical and surgical treatment, artificial limbs, vocational re-education, placement service, and just compensation and insurance payments, together with allowances to the man and

his family during the training period. It is proper for the Red Cross only to supplement these activities of the official agencies in accordance with their wishes, and this the Red Cross, through its department of civilian relief and its home-service sections, is now doing to the full extent of its resources.

In co-operation with the Federal Board, therefore, the Red Cross is undertaking, first, to see that every discharged soldier or sailor coming to its attention is fully informed as to his rights to compensation and insurance, is given assistance in making application for the same and is urged to take advantage of his opportunity to obtain special training from the government which will fit him for as good or even a better income than he received before incurring his disability. Accordingly, all such men coming to local offices of the Red Cross are provided with information, with circulars of the Federal Board, and are urged to establish contacts with the nearest district office of that department.

When the arrangements for training have been made, the Red Cross is prepared to see that the family receives any supplementary assistance or service which may be needed in addition to the provision made by the government. Effort is made throughout to have the family appreciate the importance of the government's plan for the man and to encourage him to take advantage of the new opportunities thus opened to him. Since, under the law, the taking of vocational training is entirely optional with the man, and his own will and ambition must first be enlisted in order to insure success, it is obvious that the influence of the family may be a factor of commanding importance in having him first choose and then continue in the path of self-improvement.

It may happen that a period of time elapses after a man's discharge and before his application for compensation can be acted upon and his status clearly determined under the war-risk insurance and vocational rehabilitation laws. During this period especially it is a responsibility of the Red Cross to see that the man does not suffer and that his ambition for his own future is kept at the highest pitch. Likewise, if the man must temporarily reside away from home and family, during his training, the home-service section of the Red Cross in the city where the school or shop is located is ready to co-operate with the district vocational officer of the Federal Board in rendering him every possible assistance.

Finally, the Red Cross assumes its full share of responsibility to make known to the public generally the purpose and plan of the government as regards the disabled soldier or sailor. It is only through a widespread general understanding of this program that the best results can be secured, the benefits of the federal laws extended to every individual case, and the tendency to over-indulgent, hysterical and short-sighted forms of the expression of sympathetic interest in the disabled men can be offset. Through public meetings, through the distribution of government and Red Cross pamphlets, through the display of motion pictures an effort is being made in every community to make the details of the government's program known and in every instance the Red Cross is prepared to do its part to this end.

New Members

Sands, Raymond A., Los Angeles.
Sniski, P. M., Los Angeles.
Tice, E. W., Los Angeles.
Waterman, W. W., Pasadena.
Wilson, Harry H., Los Angeles.
Wilson, L. E., Los Angeles.
Mooney, Chas. N., Santa Rosa.

* Vocational Summary, December, 1918.

Giovannetti, R. B., San Francisco.
 Thornton, Jas., Los Angeles.
 Lyon, S. B., Los Angeles.
 Van Vranken, G., Los Angeles.
 Brown, Geo. W., Los Angeles.
 Dickie, Walter M., Los Angeles.
 Wilson, Clair, Los Angeles.
 Gullan, Alt L., Los Angeles.
 Jacobs, Wm. R., Los Angeles.
 Bjorkman, C. G. A., Los Angeles.
 Bolton, B. B., El Monte.
 Burgan, James H., Los Angeles.
 Fellows, Alfred, Los Angeles.
 Goodrich, Edwin G., Los Angeles.
 Gwaltney, John S., San Pedro.
 Hill, Jack C., Los Angeles.
 Illingworth, Geo., Los Angeles.
 Keith, Duke, Los Angeles.
 Leake, Warman A., Gardena.
 Mulvehill, Wm., Los Angeles.
 Nelson, Eugene C., Los Angeles.
 Roberts, Edward K., Los Angeles.

Transferred

Siefert, A. C. L., from San Francisco to Alameda County.

Hawkins-Ambler, Geo. A., from Los Angeles County to San Francisco County.

Saphro, Elizabeth M., from Los Angeles County to San Francisco County.

Hawson, Carl R., from San Bernardino County to Los Angeles County.

Obituary

SHADWORTH O. BEASLEY.

The brief notice in the Journal of December, 1918, announcing the mere death of S. O. Beasley, prompts me to write a few lines to remind not only the Journal, but the entire medical profession of the State of California, something of the type of man they have lost.

Dr. Shadworth O. Beasley was all MAN, possessing to the highest degree the instincts and traits of a gentleman born; a thorough, hard-working student of medicine; a clever surgeon, yet with a child-like simplicity where his own personal interests were at stake, and an abhorrence of publicity, the bizarre and egotism.

His capacity for work was tremendous—forceful, driving—always striving to accomplish the highest ideals of the medical profession; a thorough American, a fighter for the right and defender of all the noblest principles that go to make up a nation.

The country has lost no grander type of American fighting man. The profession has lost no more conscientious, energetic student. The poor clinic patient, or comfortably-clothed citizen, has lost no more faithful, kindly friend in need than by the death of Shadworth O. Beasley.

Doctor Beasley was graduated at Cooper Medical College, near the head of his class in 1897, and immediately offered his services to his country at the outbreak of the Spanish-American War. He entered the Army as a contract surgeon, served throughout the war in the Philippines, was in many severely contested engagements, in which he took part not only as an Army surgeon, but often perched in the top of a tree as a sharp-shooter. Ordinary warfare was too tame for him! After being twice recommended for the Congressional Medal, he was discharged at the end of the war as a Major.

He then did splendid work in San Francisco, the city of his birth, building up a comfortable practice of staunch admirers, affiliating with the De-

partment of Surgery, and later as Instructor in Diseases of Women at Cooper College,—later Stanford Medical School. He was one of the most conscientious and able men of the faculty, respected and admired by all with whom he came in contact.

Again the shadow of war called, Dr. Beasley being one of the first to enter the service of the American Red Cross, serving seven months in Serbia. He was in Belgrade during the siege and at its fall, and had many remarkable experiences so difficult to draw from him on account of his personal dislike of notoriety.

When the United States entered the world war, Dr. Beasley was one of the first to offer his services, throwing aside personal interests and not considering rank to which his experience and former service would seem to entitle him, training with the 8th Engineers as a Captain in the Medical Section at Camp Lewis, one of the first Western organizations to go overseas. At Chateau Thierry, where the Hun was first brought to his knees, Dr. Beasley did splendid work, and early in the spring of 1918 was promoted to the grade of Major in the Medical Corps and received at the same time the decoration for bravery in action, the highest honor the country can bestow.

Just how Dr. Beasley died we do not know; but every one who knew the man and his personal make-up feel sure it was in the thick of the fight in the line of duty. It was as he himself would have wished. Stricken by a German shell, this splendid type of young man in his prime made the supreme sacrifice.

Somewhere in France lies all that is mortal of Shadworth Beasley. Here in California will his spirit shine and memory live, acting as a beacon light to the cause of a duty well done and cherished by all whose privilege it was to have known him.

F. P. T.

Burnham, Fred R., a graduate of Detroit Medical College, Michigan 1877. Licensed in California 1887. Died of pneumonia, December 11, 1918, in San Diego. Was a member of the Medical Society State of California.

O'Donnell, John Joseph, a graduate of Harvard University, Boston, Mass., 1915. Licensed in California 1918. Died in Santa Barbara Oct. 30, 1918.

Shelton, Chas. Henry, a graduate of New York Homeopathic Medical College and Flower Hospital, N. Y. 1880. Licensed in California 1916. Died in La Jolla, California, December 11, 1918.

Bluxome, Joseph, a graduate of University of City of New York 1856. Licensed in California 1876. Died in San Francisco December 27, 1918.

Trueblood, W. E., a graduate of Physio-Med. College Indiana 1897 and Physicians & Surgeons, San Francisco, Cal. 1902. Licensed in California 1897, died in Oakland, Cal., Dec. 23, 1918.

Fitzgibbon, G. J., a graduate of the Medical College of the Pacific 1877. Licensed in California 1878. A member of the Medical Society State of California. Died in San Francisco January 9, 1919.

Rosenkranz, Samuel Victor, a graduate of College Physicians and Surgeons, Medical Dept. University Southern California, Los Angeles, 1915. Licensed in California 1915. Died in the United States Marine Hospital San Francisco October 20, 1918, of influenza-pneumonia. Age 28.

Gere, George Grant, a graduate of the Eclectic-Medical Institute Ohio 1871. Licensed in California 1877. Died in San Francisco December 29, 1918 of lobar pneumonia. Age 70.

Purviance, Wm. E., a graduate of Jefferson Medical College, Pa., 1889. Licensed in California 1912. A member of the Medical Society State of California. Died in Los Angeles December 26, 1918. Age 53.

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Contributors, subscribers and readers will find important information on the sixteenth advertising page following the reading matter.

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MARCH, 1919.

No. 3

THE SANTA BARBARA MEETING.

In the advertising section you will find the rates of the Hotel Potter, Santa Barbara, where the annual meeting of the California State Medical Society will convene on April 15. Every physician in the State who misses the meeting this year will have cause for serious regret. A program of unusual excellence has been prepared, in large part the speakers having been selected in advance and invited to present some topic on which they are best qualified to speak. Owing to the fact that so many physicians are still in the military, it is not possible to complete the list of speakers and subjects as early as usual. The full program will appear in the April Journal.

Hotel Potter is a justly famous and popular resort. It is the part of wisdom to write for your reservations now. The strain of short staffs is being relieved by demobilization. The "flu" is abating. The war is over. Great problems of most urgent concern to the medical profession are pressing. The future form and status of the profession are at stake. Moreover, the very holiday will do you good. It will be a pleasure and inspiration to you to meet physicians from all over California. It will broaden your social horizon. It will introduce you to new and vital interests. It will stimulate your professional zeal. You will learn much and teach much. Come and reap all the benefits that follow association with others in your profession. Come, and lend criticism and counsel. Come, and be a better citizen and more skillful physician. If you have not seriously considered it, do so now, and carefully weigh your personal reasons against going, against the very real benefits to be derived from going. Take the wife, and the children and make it a real outing. Come, and make your reservation now.

It is earnestly requested that every person whose name is to appear on the program will attentively read the following:

Suggestions to Authors: Your audience does not want to hear you mumble through a lot of monotonous description, history and detail. They will not listen if you become absorbed in *reading* your paper. Therefore try this. Write your paper and revise it. Then read it slowly, considering how each paragraph will impress your *audience*. Then revise it again with this in view. *Then*, familiarize yourself with it so thoroughly that you can get up and *speak* it in five minutes less time than it takes to *read* it. And drive home your conclusions and personal opinions. Make it personal, otherwise we had better have phonograph records.

HEALTH DAY.

One of the best by-products of the war is the awakening of the people to the importance of health. After devoting so much time and thought and treasure to destructive work, to shortening the lives of the few for the benefit of the many—a constructive reconstruction demands that the lives of the many be as pleasantly prolonged as possible. The extraordinary loss of life from the world war and the pandemic makes the health of the survivors more precious and more essential to the progress of civilization.

The relation of the State and the individual was greatly changed by the war. The health of the soldier was of primary importance to the government during the short destructive days of war and the health of the civilian is not of secondary importance during the long constructive days of peace.

The vigorous health of our troops was a decisive

factor in hastening the day of victory and the health lessons of the war should be applied in transforming the converted plowshare from the sword into the plowshare again.

Voltaire wittily said, "The fate of a nation has often depended on the good or bad digestion of a prime minister." Our health problem is not an academic or purely professional question, but a practical, scientific, sociological business question of vital importance to all, as it involves the mental and moral improvement of our citizenship and the development, security and enjoyment of all our rich resources.

We are deeply gratified to see California take the lead in this health improvement and to recognize leading members of the medical profession as the leaders. The League for the Conservation of Public Health has inaugurated a movement to establish a new legal holiday to be known as Health Day. Bills have been introduced in the Senate and Assembly proposing to declare April 30th an annual Health Day to be devoted to "all forms of healthful recreation, a field day for physical prowess, popular lectures on the fundamentals of urban, rural, mental, public and personal hygiene, and the patriotic, scientific, economic and moral aspects of our common health progress and problems."

Dr. John H. Graves, the president of the League, has issued a statement in which he says:

"The doctors by training and experience should be best qualified to lead in questions of public health. Our special information places a civic responsibility upon us that we cannot neglect without jeopardizing both the public health and our profession. There is a growing demand that the physician shall meet his civic duty by suggesting the ounce of prevention as well as the pound of cure. For the purpose of creating and maintaining a healthy public interest in this important subject of health our League for the Conservation of Public Health has introduced Senate Bills No. 424, 425 and Assembly Bills Nos. 744 and 746 to establish in California the first Health Day of the Nation."

This effort of the League is thoroughly commendable and is not only a step but a movement in the right direction. In a memorial to the Senate and Assembly attached to the Health Day bills and urging favorable action we find such splendid sponsors as Jas. J. Tynan, General Manager Bethlehem Ship Building Corporation, and Vice-President Union Iron Works, who adds to his signature, "I strongly recommend this"; James Rolph, Jr., Mayor of San Francisco, "with hearty approval and support"; Jesse W. Lilienthal, President Boy Scouts, Recreation League and Tuberculosis Association; Most Rev. Edward J. Hanna, Archbishop of San Francisco; F. W. Kellogg, Publisher San Francisco Call and Post; John L. Davie, Mayor of Oakland; H. L. Carroll, President Los Angeles Advertising Club; William R. Bacon, President California State Dental Assn.;

Joseph R. Knowland, Publisher Oakland Tribune; H. M. Staldeman, President Commercial Federation of Calif.; Motley H. Flint, Chairman National War Savings; D. Carmichael, Mayor of Sacramento; Jacob Nieto, Rabbi Temple Israel; Daniel C. Murphy, President State Federation of Labor; W. S. Rheem, President Standard Oil Co.; George E. Gallagher, President Board of Education and many other leading representatives of the financial, educational and professional world. Such endorsements of public spirited men of big affairs are not lightly given and cannot be lightly considered. Those approving Health Day are not visionary men, but men of broad vision. All thoughtful, forward-looking people will agree that the physical welfare of each of us is the concern of all of us. It's the health of the average man that counts and Health Day is intended to raise the average. The sickness of each individual not only reduces his own efficiency and imperils his own life, but reduces the sum total and endangers the community. Health Day will create community of purpose which is essential. Get the three million people of California to observe Health Day and think along health lines and a healthy public opinion will be crystallized. To be effective health laws must be observed. Public health laws are unfortunately not automatic and without the active co-operation of the people are powerless to resist the invisible foes of health. Germs follow the line of least resistance and are no respecters of laws, places or persons. Where the bars of health are lowered they rush in. Surprise attacks of germs can only be repulsed by public and personal preparedness and public and personal hygiene. Prevention is more beneficial than cure, and Health Day will emphasize the value of the simple and easy preventive measure. The rules of right living are the right rules of health. The scientific, economic and sociological aspects of health are inseparably connected, for health and environment are close relations. Startling statistics tell us that the human and industrial loss due to sickness that could and should be prevented in this country reaches annually a billion dollars!

One day is not too much for us to devote exclusively to the consideration of such a vital subject, and make the people realize that life may be made sweeter, longer and more useful.

All days should be health days, but we must have one to start with and this first Health Day will bear fruit a hundred-fold, and with proper cultivation three hundred and sixty-five fold, thus rounding out the lengthening years of robust health.

A responsibility rests upon our representatives in the California Legislature to promote the health of the State. Health Day is a practical means to this end and merits the hearty support of those who have a sympathetic appreciation of the big idea it represents.

California should be the first State to place health first, for California has the most healthful advantages and is appropriately recognized as the Nation's Health Resort.

VICIOUS LEGISLATION.

At the beginning of the recess of the California State Legislature there were pending a total of 45 bills affecting public health, 7 concerned with pharmacy, 4 concerned with dentistry, 2 concerned with embalming, 1 concerned with the regulation of barbers, and 10 dealing with the practice of medicine. This last group of 10 is brought to your particular attention now.

One of these bills affecting medical practice has ground for existence but is of doubtful utility under present conditions. This is Senator Sharkey's bill (Senate 405) exempting physicians in government service from annual tax. The matter of this tax will be considered in the Journal next month. With reference to Senate Bill 405, it may be said that the justice and benefit undoubtedly due to physicians in service might conceivably be immeasurably overshadowed by the very real dangers lurking in any attempt to amend or change the existing Medical Practice Act at this session of the Legislature. The Act is a good one. Especially good is the requirement, operative beginning January 1, 1919, of one year's pre-medical course in physics, chemistry and biology for candidates for licensure as physicians and surgeons. It is particularly desirable that the Medical Practice Act should not be weakened by opening the door to amendment or change in this or any other particular at the present time. For this reason Senate Bill 405 seems injudicious and should be defeated.

The other 9 bills concerned with medical practice are, without exception, vicious and must be killed. Two of these are Senate Bills 223 and 384, respectively, pertaining to the licensing of trained attendants and the establishment of a chiropractic licensing board. Seven have been introduced in the Assembly. Bill 196, introduced by Baker of Los Angeles, and Bill 321, introduced by Morrison of San Francisco, are also concerned with chiropractic examiners and licensure. Bill 402, introduced by H. A. Miller of Covina, seeks to legalize treatment by students and internes. Bill 659, by Gray of Alameda, affects admission to examination. Bills 844, 932 and 933, all introduced by Merriam of Long Beach, provide respectively for striking out the "approved by the Board" clause from the present Medical Practice Act, for examination in "osteopathic therapeutics," and for issuance of physician and surgeon certificates to all holders of a certificate "to practice osteopathy." These last three bills, fathered by Assemblyman Merriam of Long Beach, are particularly vicious and dangerous. They constitute a menace to public and private health. They emasculate the existing Medical Practice Act. They amount to a complete change and amendment of the entire Act. They are hostile to the public welfare. They menace the work and existence of the medical profession.

You represent the intelligent, educated, trained leadership of the state. This position in which you are makes it absolutely necessary for you to exercise the leadership which by right is yours.

You, together and singly, are directly responsible for social welfare and civic improvement in all things pertaining to public health.

Here are nine vicious bills aiming at the welfare of society, and one bill which the malposition of time and circumstances makes undesirable. Defeat them. Defeat them at once. Next month will be too late. *You must defeat them now.* How do it? See that the day you read these words you inform your own Senator and Assemblyman that you request his vote against these bills. Have your friends do the same. Write or telegraph to your Senator and your Assemblyman that the public welfare demands that he vote against these bills and stand for rational, scientific, decent legislation. *Write or telegraph today.*

IMMUNITY.

We are receiving so many communications and verbal requests asking us to advocate various movements, attack this and that abuse, expose certain deplorable customs and conditions and generally abate nuisances, that we believe a real service will be rendered by giving publicity to communications that contain helpful hints and constructive criticism.

We are all accustomed to report contagious and infectious diseases to prevent their spread, and evil customs should also be reported for they are also communicable and not only endanger the "carriers" but those that come within their sphere of influence.

With scarcely an exception our constructive and destructive correspondents tell us their information must be regarded as confidential and their identity remain a mutual secret. The reasons assigned for this secrecy, in most cases, are convincing and altogether obvious. The information and suggestions are often valuable and should be disclosed, even if the names of writers must be withheld. In order that correspondents may be assured immunity and feel free to furnish facts and express their real sentiments on timely topics we have decided to inaugurate an Immunity page beginning with the April issue.

The Journal will express no opinion of and assume no responsibility for the views of "Immunity" correspondents. They must win or lose on their own merits by abounding in their own wisdom, and each reader must appraise each communication for what it is worth and take it for better or worse.

Communications will not be signed when published but the author must be known to the editor. Send on your complaints, your kicks, your knocks, your boosts. We want constructive and destructive criticism. Air your pet hobbies. You are not limited to your own town or the medical profession.

The elder Talmage truthfully said: "Many a man is striving to do by prayer what can only be done by correct diet."

SCRIPTO-DICTO PARALYSIS MEDICORUM?

Doctors, clean your desks and avoid or cure Scripto-Dicto Paralysis Medicorum. Did you ever hear of this new malady?

A group of doctors met recently and one of them addressing his confreres said, "Have you encountered the mysterious physicians' complaint known as Scripto-Dicto Paralysis Medicorum? All confessed that they had not and inquired in chorus, "What is it?" "Three of you have it in an acute form," replied the first physician. "Well, give us your profound diagnostic conclusions," interjected one of the group. "Don't hold us in such intense suspense."

"Scripto-Dicto Paralysis Medicorum is very insidious," said the first physician, "and those who have it worst realize it least. It does not always make them suffer, but it makes others suffer."

"What a delightful disease to have," said one of the doctors who had been listening with an amused air. "Couldn't we give absent treatment to those who had our scripto-dicto what-you-may-call-them pains?"

"This is not a subject for levity," said the first physician. "It is making serious inroads on our best doctors. It attacks the busy doctor and he feels such fatigue after many calls that when he reaches his office he can neither write nor dictate. Correspondence nauseates him, and yet the only remedy is for him to clear his desk and get rid of his correspondence."

"There are two letters on your desk, and three on yours, and one on yours," he said, pointing directly at individual fraternal hearers, "all written by me, all on important subjects, all demanding prompt answers—and all unanswered."

"Say, Professor, I have piles of mail accumulated on my desk that I haven't time to touch," declared a surgeon who had just joined the group. "Another victim of our spreading malady," said the first physician impressively. "And now that I have diagnosed the case, what is the remedy? To cure your present attack assemble all the unanswered correspondence that has accumulated during this period of overwork. Call your stenographer and dictate proper answers to all. Avoid careless expressions that you would not care to see in print. Remember the letters you write may later appear in bold-faced type on the pages of the daily press."

"Why, Professor, you almost persuade me to leave the letters unanswered. I feel a fresh attack of that Scripto-dicto discovery of yours coming on," said a surgeon nervously. "If some of the letters I have carelessly written or dictated in the past were to appear in bold-face type everyone in the community would be laughing but me."

"Well, we'll hope that no evil consequences will flow from past inattention, as I would not enjoy reading some of my hasty dictation in printed form either," said another.

"Yet, you must admit," said the diagnostician, "that a professional man is often measured by the propriety and promptness of his correspondence. So answer your correspondence promptly and prop-

erly. Clean and keep your desks clean, and I guarantee a complete recovery from your present severe attack of Scripto-dicto paralysis medicorum."

STATE PSYCHOPATHIC HOSPITAL.

A bill has been introduced into the Senate by Senator M. B. Harris of Fresno (Senate Bill No. 429), and into the Assembly by Assemblyman Bennett of Santa Clara (Assembly Bill No. 389), providing for the establishment, government and maintenance of a State psychopathic hospital.

The purpose of this hospital as stated in the bill is the study of abnormal mental states, their nature, causes, results, treatment and prevention; education regarding such abnormal mental states; the dissemination of knowledge in such matters; the care, observation and treatment within the wards of such hospital, out-patient department, or elsewhere in the State of persons suffering from insanity and other abnormal mental states; the investigation in any part of the State into the primary or precipitating causes of insanity; to co-operate with local or State authorities and institutions in preventing abnormal mental states and aggravation thereof by unfavorable environment.

As to the location, erection and management of the hospital, the bill provides that it is to be under a "board of trustees consisting of the medical superintendent of the State hospitals, the president of the Medical Society of the State of California, the deans of the medical departments of the University of California and Stanford University, a neurologist and psychologist and two other persons not physicians, at least one of whom shall be a woman, which last four persons named shall be appointed by the governor. The board shall acquire in the name and on behalf of the people of the State of California, lands and rights in lands in the city and county of San Francisco, upon which they shall erect, equip, furnish and maintain a building or buildings suitable for said hospital. The said building or buildings shall be sufficient to accommodate at least one hundred patients and the necessary officers, physicians, nurses and employees, and to provide for general administration, treatment rooms, laboratories and an out-patient department.

"So far as not inconsistent with the provisions for the maintenance of State hospitals the board of trustees shall provide for the government and maintenance of this hospital. They shall provide for such out-patient departments, laboratories, social service, field work and co-operation with public officers and institutions as they may deem necessary and advisable. They shall appoint and define the powers and duties of the director of the hospital and such physicians, officers and employees as they may deem necessary.

"Out of any moneys in the State Treasury not otherwise appropriated, there is hereby appropriated the sum of two hundred thousand dollars, or so much thereof as may be necessary for the preliminary purposes of this bill."

That there are strong reasons for the establish-

ment of a State psychopathic hospital, aside from those of reconstruction and rehabilitation, is attested by letters which have been received from physicians working in the field of psychiatry and neurology and many other citizens since the bill was introduced into the Legislature.

Physicians all over the State should do everything possible to secure the passage of this important measure through communicating with the Governor, their representatives in the Legislature and the Board of Control.

THE LOS ANGELES COUNTY HOSPITAL.

In another column will be found a description of the Los Angeles County Hospital by its superintendent, Norman R. Martin. It is an institution of which the medical profession and other citizens of Los Angeles County may well be proud.

It is to be regretted that an editorial recently in the *Journal of the American Medical Association*¹ reflected seriously on the professional standing and internships of this hospital.

Fuller investigation and better acquaintance with the facts of the case would doubtless have led to a very different judgment.

The situation is very accurately summarized by Dr. Martin as follows: "The average daily population of the Los Angeles County Hospital for the past fiscal year was 1008 patients. It is the only public hospital serving the City and County of Los Angeles with a civilian population of approximately one million people. It treats every disease except smallpox. Since war was declared it has contributed 118 doctors and nurses to the service, this including the Medical Director, Assistant Medical Director, and Superintendent of Nurses. Our internship covers a period of eighteen months and the United States Government drafted our internes in ten to twelve months, making a very difficult situation to meet. The civilian sick had to be taken care of, regardless of these heavy drafts on our professional department, and it was necessary to make temporary appointments from among candidates for civil service examination at the time."

Examinations for internes in the Los Angeles County Hospital are conducted by the Civil Service Commission of the County at thirteen points in the United States, including Los Angeles, Chicago, Philadelphia, New Orleans, Cincinnati, New York, Boston, Minneapolis, Omaha and San Francisco. Under the California State law, osteopaths may qualify for the physicians' and surgeons' license by due examination, and are then entitled to the same rights and privileges as regular physicians. It is therefore not in the power of the hospital to exclude osteopaths from internships, provided they have been certified as eligible by the Civil Service Commission. If fault there be, it lies with the medical practice act as enacted by the Legislature.

In addition to these and other minor circumstances, altogether tending to make the temporary situation in the Los Angeles County Hospital most trying, is to be reckoned the influenza epi-

demic. It was absolutely necessary to care for these added patients at once in the best manner possible. It was absolutely impossible to preserve the exact standards of normal peace times.

Instead of the hospital deserving censure, it deserves full credit for maintaining efficient professional work and for meeting abnormal and excessive emergencies, both in spite of heavy and unusual handicaps.

EDITORIAL COMMENT.

Do not fail to read Dr. Lengfeld's thoughtful and practical reviews each month in the Department of Pharmacy and Chemistry. His warning against "a union suit which fits everybody" is most timely.

In startling contrast to the present-day scientific nurture of boyhood, the Boy Scout movement, etc., is to be noted a Connecticut state law, Revision of 1702, aimed at the small boy on a hot Sunday afternoon. "No person . . . shall swim in the water in the evening preceding the Lord's Day or any part of the said day or the evening following, . . . nor use any game, sport, play or recreation on the Lord's Day. Penalty to shillings."

All doctors not now licensed in California, who are, or have been in military service, and expect to locate in California, should read the letter in this issue of the *JOURNAL* from Dr. Pinkham, secretary of the State Board of Medical Examiners.

Our confreres, the dentists, are working for the legal establishment of a system of dental nurses, who would be a powerful influence in the development of preventive dentistry and early thorough oral hygiene. Trained dental nurses would perform simple prophylactic operations in schools, public institutions and dental offices under the personal direction of registered dentists. The idea is strongly to be commended.

The United Fruit Company, which operates a line of fast fruit steamers between Atlantic Coast ports, West Indies and Central America, has found as a matter of business experience that it pays to conduct a modern well-equipped medical department. Twenty-three physicians are engaged in this work and their activities cover the sanitation of ships, terminals, and company industrial developments, the care of sick and injured employees, and the provision of medical service to outside persons where other physicians are not available. Perhaps their most important duty lies in the realm of disease prevention. This is naturally a matter of considerable importance in the tropical regions where the company operates. That it pays is shown by the fact that the percentage of cost of operating the medical department to the total operating cost of the tropical divisions was 0.87 in the year just finished.

¹ *Jour. A. M. A.*, Jan. 4, 1914.

Special Article

BUREAU OF CHILD HYGIENE.

By LOUISE B. DEAL, M.D., San Francisco, Chairman
Child Welfare, California Federation
of Women's Clubs.

For the past three years the California Federation of Women's Clubs has taken a special interest in its Department of Child Welfare.

The State Federation is composed of 40,000 women representing, practically, every community of California. These women are filled with the present-day desire for service. Forty thousand woman-power represents a tremendous force and it rests largely with the medical profession as to whether this force shall be directed to work rationally or whether it shall be expended on fads. To educate the people toward better health conditions is one of the obligations of the medical profession.

Our physicians who are doing public health work in France find that their greatest difficulty arises from the lack of understanding, among the people, of even the simplest laws of health. One of our women who has charge of a tubercular sanatorium writes: "There are in this institution over forty patients, and one bath-tub, and it is extremely difficult to make the patients understand that it is not perfectly right and proper to spit in this one tub."

The women of our State are entitled to a scientific training along all matters pertaining to the home, and our California physicians who have assisted in carrying out our Children's Year Drives and our Baby Welfare Weeks have done much toward this end. More than 540 physicians have given their time and their energy to instructing mothers regarding the betterment of the home.

But there is need for something permanent—a Child Hygiene Bureau, whose business it shall be to aid and direct mothers, assist women's organizations in their Baby Welfare Weeks, and supply reliable information when called upon.

During the past three years I have received scores of letters from all parts of the State, asking all manner of questions regarding home matters. I have done the very best I could with very limited facilities. I have not been able to provide speakers, nor charts, nor movie films, nor nurses, nor a dozen other things that have been asked for, and which would be the equipment of a Child Hygiene Bureau.

Assembly Bill No. 114, a copy of which will be found in this issue of the Journal, comes before the Legislature this session. It fills a great demand in a legitimate way, and is deserving of the active interest of every medical man and woman in the State. If we hope to educate the people in the value of preventive medicine, we must begin in the home; the mother must be taught that it is as much the desire of the doctor to keep the baby well as it is to cure it when it is sick, for it is only in this way that we are able to counteract many of the fads that are growing up in our midst.

The women of the State Federation feel the need of a Child Hygiene Bureau, and for this

reason are asking the Medical Profession to actively assist them in making Bill 114 a law.

69 Fair Oaks St.

Original Articles

A STUDY OF ACHYLIA GASTRICA BY THE FRACTIONAL METHOD.

By ERNEST CLYDE FISHBAUGH, A. M., M. D.,
Los Angeles.

The term achylia gastrica, designating a stomach symptom, was first introduced by Einhorn¹ to indicate a condition in which there was an absence of gastric secretions. Fenwick² in 1877 first described an absence of stomach secretions which he had observed in cases of pernicious anemia. Following Fenwick's original description, Lewy,³ Ewald,⁴ Henry and Osler,⁵ Kinnicut,⁶ Nothnagel,⁷ George Meyer,⁸ and others made valuable contributions to the literature of "atrophy of the stomach mucosa" in which gastric secretions were absent.

Ewald⁹ applied the name anadenia gastrica to a similar condition of the stomach, because he believed the lesion produced a total destruction of the secreting parenchyma.

Other terms such as "atrophy of the stomach" and "phthisis ventriculi" are sometimes used to designate a similar condition.

A fairly characteristic syndrome of symptoms has been pictured by various authors on achylia gastrica, but without a careful study of the stomach secretions at frequent intervals during the digestive cycle, the observer will make repeated error in diagnosis. Different observers have made fairly accurate secretory analysis of stomachs by repeated test breakfasts removed at varying lengths of time after ingestion of the meal. This method necessitated frequent passage of the stomach tube which, to the average patient, was most objectionable. Consequently, the procedure was not generally employed by physicians and many were and are content to make the diagnosis of achylia gastrica upon the finding of no hydrochloric acid in a specimen removed one hour after the usual test breakfast. Patients were advised accordingly and not infrequently the physician was disconcerted to find that his patient did not improve according to his prognosis, his error being due to a wrong diagnosis, based upon insufficient data.

It was not until Rehfuess¹⁰ perfected a simple technique for fractional examination of the stomach contents that the profession had at its command a practicable method with which to make such a diagnosis.

It is the purpose of this study to show that

1. Einhorn, Max: N. Y. Med. Record, June 11, 1892.
2. Fenwick, S.: The Lancet, July, 1877.
3. Lewy, B.: Berliner Klin. Wochenschr., 1877, No. 4.
4. Ewald, C. A.: Ibid., 1886, No. 32.
5. Henry and Osler: Am. Jour. Med. Sc., Vol. 91, 1886, p. 498.
6. Kinnicut, F. P.: Ibid., Vol. 94, 1887, p. 419.
7. Nothnagel: Deutsch. Arch. f. Klin. Medicin, Bd. XXIV, Heft 4-5.
8. Meyer, George: Zeitschrift fur Klinische Medicin, Bd. XVI, p. 366.
9. Rehfuess, M. E.: Am. Jour. Med. Sc., June, 1914, pp. 848.
10. Fishbaugh, E. C.: Jour. Am. Med. Assoc., Oct. 28, 1916, Vol. LXVIII, pp. 1275-1279.

repeated examinations taken at various intervals during the period of digestion are necessary in order to demonstrate an absence of stomach secretions. The qualitative and quantitative estimation of pepsin and rennin is quite as essential as the determination of the acidity content.

The technic used in this study was quite similar to that described in a previous communication.¹¹ For the benefit of those who perchance are not familiar with the procedure, a partial repetition would seem justifiable. The patient in a fasting state (nothing is taken into the stomach after retiring the night previous) is given forty grams of water crackers and 300 cc. of water, as a test breakfast, about 50 cc. of the water being reserved to be swallowed with the tube. The Rehfuß¹⁰ or Jütte¹² tube, preferably the latter, is swallowed immediately after the ingestion of the breakfast. The tube remains in the stomach during the entire period of gastric digestion, and at intervals of 20 minutes, 15 to 20 cc. of the stomach contents are aspirated, until the stomach is empty. The specimen from each aspiration is filtered and the gross appearance as regards mucus and digestive changes noted. Measured quantities of the filtrate are titrated with hundredth normal sodium hydroxide, phenolphthalein being used as an indicator in the determination of the total acidity and dimethylaminoazobenzene for the free hydrochloric acid. Quantitative pepsin estimation is made by placing a Mett tube¹³ into a mixture of equal parts of the anacid filtrate and tenth normal hydrochloric acid, placed into an incubator, and the amount of digested albumen measured at the end of 24 hours. Qualitative rennin estimation is made by adding a few minims of the filtrate to 5 cc. of fresh milk, allowing it to stand in an incubator for 10-15 minutes, after which coagulation is noted.

The presence of rennin in this series of examinations has coincided with that of pepsin. In not a single instance was rennin lacking when peptic digestion occurred.

As a basis for this study 56 cases have been selected in which carcinoma ventriculi or cancer of other visceral organs was definitely eliminated. The symptomatology and physical findings of these cases have been so varied that an attempt at classification would be quite valueless as a diagnostic aid. Cases have been included, in which errors in diagnosis would have occurred, had the examination been concluded by an ordinary test breakfast removed within one hour after ingestion.

As noted in a previous article,¹¹ these cases group themselves into three definite classes:

1. Cases showing an absence of hydrochloric acid and enzymes.
2. Cases showing an absence of hydrochloric acid with the enzymes present.
3. Cases showing the presence of hydrochloric

acid and enzymes, but appearing late in the digestive cycle.

Of the 56 cases only 17, or 30%, belonged to the class in which there was an absence of both hydrochloric acid and the ferments, rennin and pepsin. Chart I represents such a case. This is a true achylia gastrica. The emptying time was 2 hours and 20 minutes and the total acidity did not exceed 10. In descriptions of achylia the low total acidity is considered a feature of diagnostic value and should not exceed 10 to 12. However, Chart II shows a total acidity curve which slowly increased to 20 at the end of one hour and 40 minutes, and the stomach was not empty until the end of three hours. There was aepsia and no rennin in this case.

By the usual method of stomach examination, aspiration is necessary before the one hour period in order to secure a specimen of sufficient size for analysis, but in this series of true achylia, the emptying time varied from 40 minutes to 3 hours, with an average emptying time of 1 hour and 43 minutes. The average of 1 hour and 43 minutes is a somewhat more rapid emptying time than observed in normal individuals but not as rapid as usually reported in achylia gastrica. It is doubtful if the stomach secretions ever return in this group of cases. Such cases as have been reported were not examined by the fractional method originally, and consequently the presence or absence of the enzymes in the later part of the digestive cycle was not known.

Twenty-two cases, or 40%, of this series showed an absence of hydrochloric acid during the entire period of stomach digestion, but with pepsin and rennin present in normal or decreased amounts. Chart III represents a case of this class. The total acidity was not over 10, but the secretion of pepsin was practically normal. In this case as in six others, there was no pepsin or rennin previous to the one hour period. It is obvious that aspiration within the first hour would have demonstrated a true achylia gastrica. Later in the cycle, however, the ferment content became normal. In the 15 remaining cases the ferments appeared in the early phase of digestion. The maximum quantity of pepsin in this class of cases varied from 1 millimeter digestion, which is an evident hypopepsia, to normal. The average emptying time for the 22 cases was 1 hour and 57 minutes, one-quarter hour longer than in the true achylia. The prognosis of a return of secretions to normal in this group of cases is better than in the previous one. Chart IV is a case, which on August 1, 1917, showed no free hydrochloric acid but a medium amount of ferments. Chart V shows a normal secretory curve in the same case, 2½ months later.

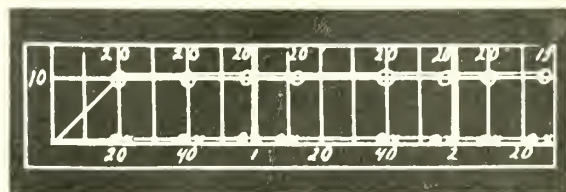
The remaining 16 cases of this series, or 30%, showed a delay in the appearance of the hydrochloric acid for 1 hour or more, after which the acid and ferments were present. This group forms the so-called spurious or psychical achylia. Pawlow believed that there was a psychical and a chemical secretion during the course of normal digestion. Such being true, it would seem that in this

11. Rehfuß, M. E.: "Modified Gastro-Duodenal Tube," N. Y. State Jour. of Med., Aug. 22, 1914, No. 8, p. 349.

12. Jütte, M. E.: Jour. Am. Med. Assoc., Feb. 22, 1913, Vol. LX, No. 8, p. 586.

13. Mett: Zeit. f. Physiol. Chemie., 1885.

class of cases the psychical secretion was absent and only the chemical secretion present. It is in the spurious achylia that the most frequent errors in diagnosis occur, since by the usual method of stomach examination the test breakfast is removed before the chemical secretion has appeared. Chart VI illustrates the case with which such a mistake could occur. On April 1, April 2, June 2, June 3,



Explanation of Charts.

Acidity scale on left border. Pepsin scale on right border. Time scale at bottom. Quantity in cc at top.

O—Total acidity.

●—Free hydrochloric acid.

X—Pepsin.

Chart II.

A true achylia with a high total acidity.

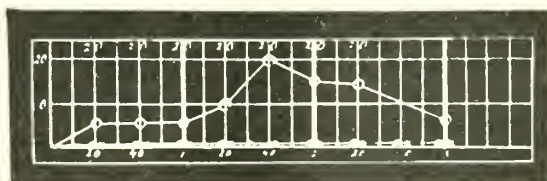


Chart III.

Absence of free hydrochloric acid, enzymes normal but appearing late.

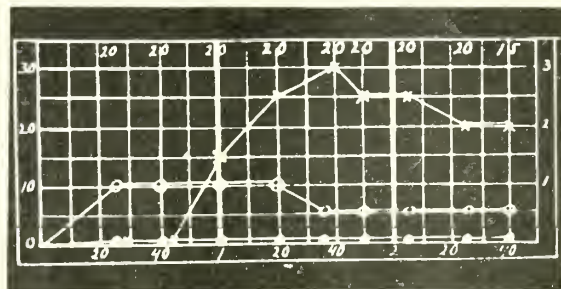


Chart IV.

Case with no free hydrochloric acid but enzymes present, before treatment.

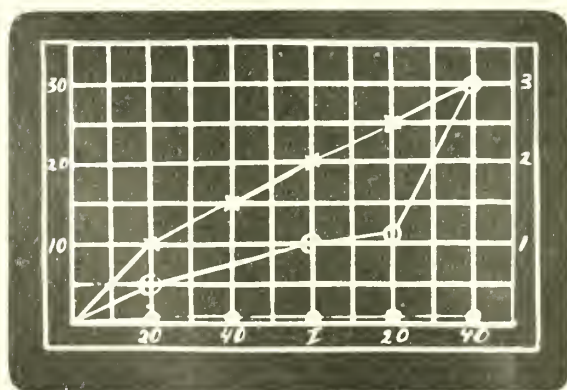


Chart V.

Case shown in Chart IV, 2½ months later. Normal secretion.

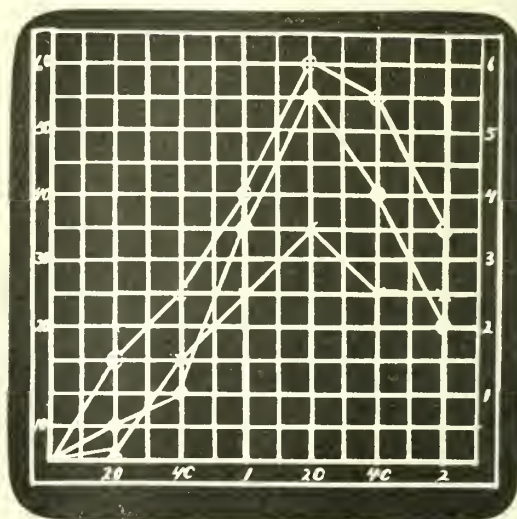


Chart VI.

Delayed stomach secretions.

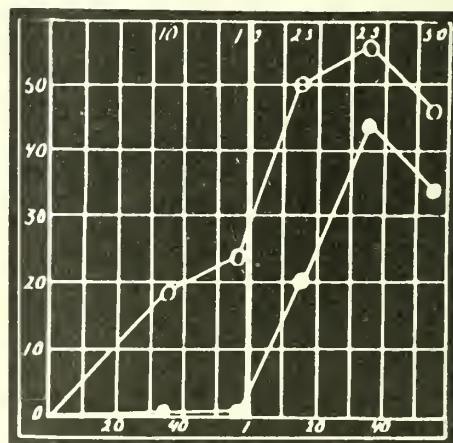


Chart VII.

Delayed stomach secretions with very slow appearance of acid.

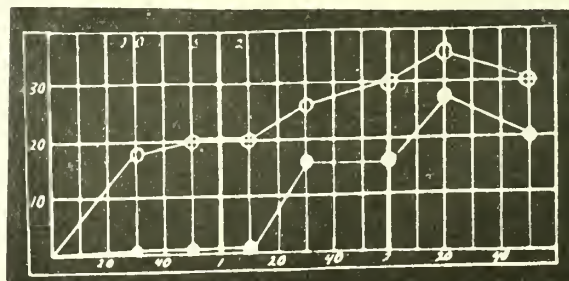
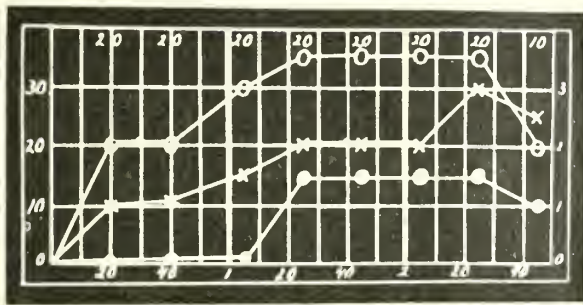
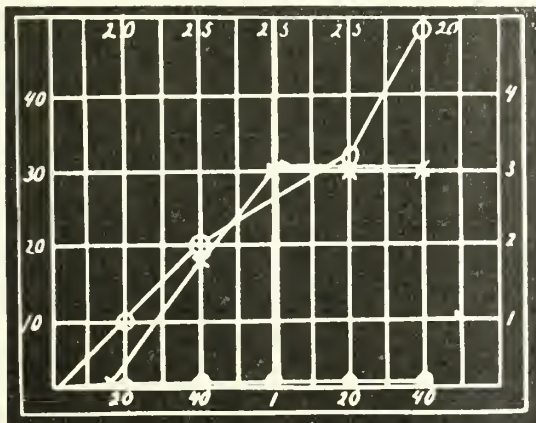


Chart VIII.

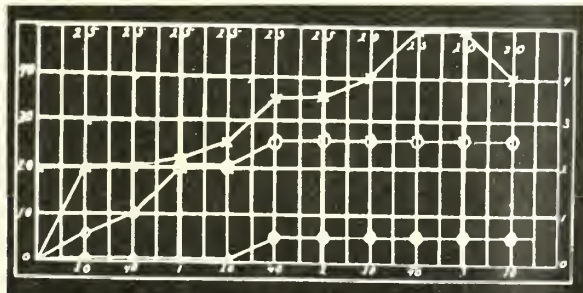
Same as Chart VII, one year later.

**Chart IX.**

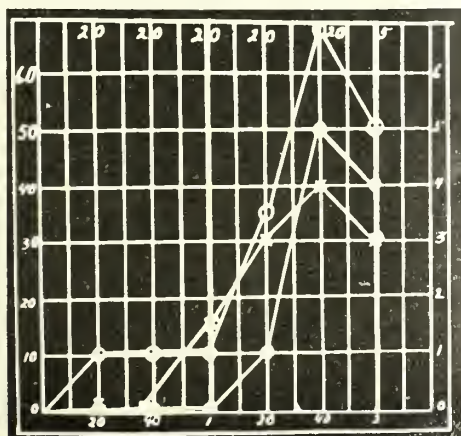
No free acid, normal enzymes. Empty in one hour, forty minutes.

**Chart X.**

Same case as Chart IX one week later.

**Chart XI.**

Delayed acid and enzymes.



and July 12, Ewald test breakfasts were given and removed within the first hour, as later at-

tempts at aspiration with the ordinary stomach tube showed the stomach to be empty. On each occasion there was found to be no free hydrochloric acid and no macroscopic digestive changes in the food. August 3rd of the same year, the patient was examined by the fractional method and this chart shows the findings. The free hydrochloric acid did not appear until the 1 hour and 15 minute interval. During the second hour the acid and enzyme content was normal. The stomach was empty in 2 hours and not, as previously supposed, rapidly emptying. Similar experiences obtained in other instances until it became routine to examine such cases by the fractional method.

Chart VII shows a similar case in which the free hydrochloric acid appeared 1 hour and 30 minutes after ingestion of the test meal and did not reach the highest level until the 2 hour and 20 minute period. The same case examined one year later presented a similar curve of secretion, Chart VIII. The pepsin appeared one hour before the free hydrochloric acid. The emptying time on both examinations was 2 hours and 50 minutes.

Chart IX shows a complete absence of free hydrochloric acid, with a normal total acidity and pepsin curve in a case whose stomach was empty in 1 hour and 40 minutes. One week later, Chart X, the emptying time was 3 hours and 20 minutes. If the curve in Chart IX could have been continued farther, might the free acid have appeared as late as 2 hours, and if not, could this case represent a suppression of both the physical and the chemical secretions?

In 75% of this group of cases, the pepsin appeared early in the cycle of digestion, so that even though a one hour examination alone had been made, the pepsin would have been noted. But in four cases the ferments were also delayed. Chart XI shows such a case. In the first hour the stomach secretions were completely absent, but in the second hour they became quite normal.

The emptying time in the spurious achylia varied from 1 hour and 40 minutes to 3 hours and 30 minutes, with an average, for the 16 cases, of 2 hours and 8 minutes, somewhat longer than observed in the preceding groups.

It is therefore quite evident that the spurious achylia present the greatest difficulties to correct diagnosis by the usual method of stomach examination. Since 30% of this series of cases could have been misdiagnosed by the one hour examination, it seems evident that a more extensive examination is necessary in every case where free hydrochloric acid is not found.

In Conclusion.

1. The fractional method, as above described, is exceedingly simple in technique, causes a minimum discomfort to the patient and affords a maximum data in the least possible time.

2. All so-called achylia gastrica cases should be examined by the fractional method in order to properly group them.

3. The physical achylia form a large percentage of cases which are easily misdiagnosed by the usual method of stomach examination.

4. The division of achylia gastrica cases into the above groups is of distinct prognostic and therapeutic value.

Chart I.

A true achylia with low total acidity.

HEREDITARY HEMORRHAGIC TELANGIECTASES.*

By F. F. GUNDRUM, M. D., Sacramento.

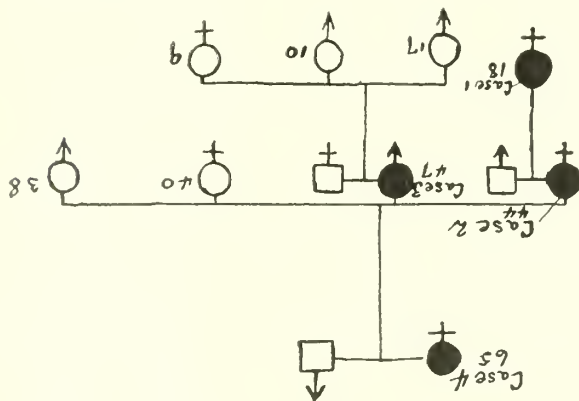
The relative rarity of this remarkable affection so well described by Hames¹ who, in 1909, collected all recorded cases, seems sufficient excuse for a review of its outstanding features and the reporting of an additional family group.

Case 1. Lucy M., October 18, came to me because of chronic, variable pain in right side with tenderness over McBurney's point. Laparotomy by Dr. J. B. Harris disclosed a tuberculous appendix. In the course of the routine examination ten telangiectases, purplish red in color and varying from 0.5 to 3.5 mm. in diameter were noted on the tongue. Upon inquiry she gave a history of quite frequent and severe "nose bleeds." Two small similar telangiectases were found upon the septum nasi.

Case 2. Mother of Case 1, age 44. Well nourished, slightly pale has about forty typical purplish telangiectases on the cheek, ears, eyelids and nose. Five were seen upon the nasal septum. She is subject to severe "nose bleeds."

Case 3. Brother of Case 2, age 47, well developed, healthy; has about twenty "spots" on face and nose, not much trouble with nosebleeds, but must use care in shaving for a slight scratch upon one of these "spots" has caused rapid and prolonged bleeding.

Case 4. Mother of Case 2 and 3; died at 65 from "heart disease," had about thirty similar spots upon the face and was also liable to severe nasal hemorrhage.



I was not able to go any farther back into the history of the family. The California members have been out of touch with the rest of their family connections for many years. There are six other persons in the family, three of them children, who have not as yet shown any signs of this hereditary peculiarity of the blood vessels.

The following diagram gives a schematic résumé. Full dots represent members having telangiectases. Open dots indicate members free from them. Squares denote individuals not included in the hereditary line.

Definition.—A hereditary affection manifesting itself in localized dilatation of capillaries forming distinct spots, apt especially to be found on the face, in the mouth and nose and to give rise to

active hemorrhage either spontaneously or as a result of trauma.

Etiology.—Heredity seems by all odds the most frequent and constant factor. Hames thought that traumatism and the abuse of alcohol were to be included as etiological agents. Neither could have had much of a role in these cases.

Pathology.—A wide dilatation of the vessels of the corium.

Symptoms.—Discrete, reddish and purplish, slightly elevated, sharply outlined spots, blanch on pressure and bleed profusely upon very slight injury.

Diagnosis.—Should present no difficulty; the appearance of these telangiectases is pathognomonic.

Treatment.—Consists of cauterization of all telangiectases with chromic acid bead, heat or other means to destroy the tiny mass of dilated bloodvessels.

Capitol National Bank Bldg.

ELECTRICITY APPLIED IN GYNECOLOGY.*

By OLGA McNEILE, M. D., Los Angeles.

Electricity, like any other single therapeutic agent, is not a panacea for the relief of all pelvic pathology, but it has made itself one of the necessary methods of treatment in the practice of gynecology.

The most important factor to be considered is the proper choice of cases which will be benefited by the use of the current. It is my firm belief that the failures reported are due to the fact, firstly, that enthusiasts apply electricity in nearly every case that comes to their attention, with resulting injury to the patient and discouragement for the doctor, and, secondly, to the lack of care used in the choice of the kind and amount of the current used, and in the poor technique from the standpoint of asepsis.

The galvanic current is the one which gives the best results in the majority of cases. The first thing to decide is whether the positive or negative current is indicated, but this is not difficult when we remember two general principles—the positive current acts as a constrictor, while the negative current acts as a dilator. In most pelvic conditions that are brought to our attention, we find either a relaxed condition of the uterus and adnexa, with the accompanying congestion, hemorrhage and discharge, or the less common condition which resembles a muscle spasm. The positive current will tend to constrict the relaxed tissues, while the negative current will relax the tense tissues. In addition to these mechanical factors, we find a direct chemical action based upon the fact that the positive pole acts as a cataphoretic agent, and will cause a deposit upon the tissues of whatever drugs are chosen for that purpose. The sounds are copper-tipped. If immersed in a ten per cent. solution of sulphuric acid for a few seconds and then dipped into metallic mercury, a copper amalgam

* Reported to Sacramento Society for Medical Improvement, October 15, 1918.

¹ Hames, F. M., Johns Hopkins Hospital Bulletin, Volume XX, No. 216, March, 1909.

* Read before the Los Angeles Obstetrical Society, February 12, 1918.

is formed on the sound, and when the negative current is passed through this sound, a deposit of mercury is made at the point of contact, thus causing a direct sterilization of the diseased mucosa.

The technique has for its foundation absolute asepsis, and this is easily maintained by having as small a field of operation as possible, and in intra-uterine manipulations the cervix is the entire field. The speculum is boiled for at least ten minutes. The tenaculum and the sounds are kept in a twenty per cent. solution of lysol, all but the handles being immersed. The speculum is introduced, and the tenaculum, rinsed in sterile water, grasps the upper lip of the cervix. The sound, rinsed in sterile water, is then introduced directly into the cervical canal and up on into the uterine cavity, neither tenaculum nor sound having come into contact with anything but the surfaces to be treated. In infected cases, the cervix may first be painted with tincture of iodine, although this makes the field of operation very dark. I have found it just as satisfactory to paint the cervix and its canal after the treatment is over, although it has not proven necessary for me to use this extra measure against infection.

With the negative pole in the uterus, from twenty to fifty milliamperes are easily tolerated, while with the positive pole in the uterus, from eighty to one hundred and twenty milliamperes are used. A twelve-inch felt pad, partly covered with lead, is placed over the lower abdomen. It is moistened with warm water, and covered with a towel to prevent wetting the patient's clothing. I prefer to allow the patient to wear her corsets during the treatment, since these tend to hold the abdominal pad snugly in contact with the skin, although one must make sure that there is no point of contact between the metal of the corsets and the lead cover of the pad. The indifferent pole is attached to this pad, and the current, which is allowed to run from five to fifteen minutes, must be turned on very gradually. The amount of current tolerated varies in different patients, and may vary in the same patient from time to time, depending upon the amount of moisture in the skin, and upon general atmospheric conditions. It is always better to keep the patient on the table for about five minutes after these treatments. It is necessary to tell them that there may be a slight discharge of blood for a few hours, coming from the puncture of the cervix by the tenaculum.

I have divided the cases in which I think electricity is indicated into six general classes, and will discuss the indications and technique of each class separately, since there are minor variations to be considered.

1. *Dysmenorrhea* is the condition most commonly treated in nulliparous women. The first step in the treatment of this condition is to determine the exact cause of the pain, since dilatation of the cervix will not materially effect a dysmenorrhea caused by ovarian inflammation, or one due to a lack of the normal balance between the various glands of internal secretion. The nega-

tive intra-uterine current is only indicated in that form of painful menstruation which is found associated with a true cervical stenosis, acute ante-flexion or an infantile uterus. This form of dysmenorrhea is characterized by intense cramping pains preceding the establishment of the flow, may continue from a few hours to a few days, and is relieved as soon as the flow becomes free. In other words, the pain is the result of an attempt of the uterus to slightly dilate the cervix, which is necessary in order to establish free drainage. This dilatation may cause pain as severe as that of the first stage labor pains, and renders many young women unable to follow any regular occupation. In these cases, I dilate twice a week for one month, beginning with the smallest sound. After two treatments the next larger sound passes the internal os very easily. After eight or ten semi-weekly treatments, one dilatation is given just preceding each period for about eight or ten months. Relief from pain is experienced after the third or fourth treatment, and dilatation is continued solely to overdilate the cervical canal, in order that it remains normal in width after the inevitable contraction occurs. The advantage of electrical dilatation over forced dilatation under anesthesia is that in the former the muscle fibres are stretched, while in the latter they are broken, so that in the former practically no scar tissue, with its marked contraction is formed. Therefore, gradual dilatation means a permanently enlarged cervical canal, while forceful dilatation often means a canal smaller than at the time of the operation. The following is a typical case illustrating the above class of cases:

Miss S.—38 years old. Since beginning of her menses, has had "cramps" for six or eight hours preceding the flow. Examinations disclosed an acutely ante-flexed uterus, with a long cervix and a very narrow canal. The cervix was dilated once a week for seven weeks, with complete relief of the dysmenorrhea, which relief has persisted for four years after the original treatments.

In embryonic, or infantile, uteri, this line of treatment enlarges the uterus in a decided manner, provided there are no marked abnormalities in the ovaries. This enlargement is due to the congestion which the current produces; in other words, increased nourishment causes a stimulation of the production of new tissue. Although it does not develop the uterus in every case, it is the only agent I have found that will give any results. All these cases are put on extract of corpus luteum during the entire period of treatment.

Miss M.—25 years old. Never married. Menstruated for one or two days regularly until four years before treatment was instituted. In those four years, there was not even a show of blood, and the patient suffered all the reflex symptoms common to the menopause. Examination revealed a uterus about half the normal size, acutely ante-flexed, and with a cervix no larger than the first joint of the little finger. This case was dilated weekly for a period of three months, then monthly for one year. After two months' treatment, a two-day period was established which continued regularly ever since. The uterus is now normal in size. This girl received both ovarian extract, and one-grain doses of potassium permanganate

by mouth during the entire period of treatment.

2. *In multipara*, the commonest complaint is bearing down, backache and nervousness, nearly always found in cases of subinvolution, with or without retroversion, following child birth or abortion. If the perineum and cervix are badly lacerated, as they too often are, a plastic operation alone can effect a permanent cure, although the results of such an operation are better if the uterus is first reduced in size to nearly normal. In cases where the perineum and cervix are good, or where the patient refuses operation, the positive intrauterine current shows its greatest effect. The size of the uterus becomes normal after from two to eight applications. If retroverted, it can then easily be replaced and held in position with a pessary, which must be worn from one to three months in order to enable the uterus and adnexa to entirely recover their tone. The general treatment in cases of subinvolution consists of rest, knee-chest position, ergot and laxatives, while locally, magnesium sulphate or glycerine are applied by tampon for their dehydrating effects.

Mrs. S.—25 years old. Three children, youngest eighteen months old. Menstrual flow very heavy for past six months, combined with backache, pain in left inguinal region, and leucorrhoea. Uterus was found double the normal size and retroflexed, but movable. Four treatments were given, running the positive current into the uterus for ten minutes each time. At the end of this time, the uterus was normal in size, and the next period was normal in amount. The uterus was then replaced, and a pessary fitted. The pain on left side was relieved, and was due to dragging on adnexa. Wore pessary four weeks only.

3. *Hemorrhage* is a common symptom in women who come to the office for treatment, either as a result of chronic endometritis, or following abortions or even child-birth. The old idea was that all such women needed an immediate curetage, but the positive intrauterine sound acts in these cases much the same as in subinvolution cases. The current causes a contraction of the uterine muscle fibres, clots and shreds of membrane are expressed and the hemorrhage soon ceases. Pure tincture of Iodine is applied to the uterine mucosa, and two or three treatments, a few days apart, are sufficient to restore the uterus to normal.

Mrs. V.—25 years old. Has three children, the youngest of whom is nineteen months old. Ever since last labor, she has had continuous cramps and a slight flow. Uterus was found soft, tender and twice its normal size. After two treatments, all pain and bleeding stopped.

The hemorrhage we find in certain cases of fibromata of the uterus are often controlled by prolonged application of from 100 to 120 milliamperes of the positive current. This makes an ideal preparation for future hysterectomy, lessening the high mortality of that operation by giving the patient a fairer chance, since prolonged hemorrhage lessens resistance to shock more than any one single factor. I have also had good results in cases refusing operation, and after six months' persistent treatment have reduced the size of the tumor to such an extent

as to relieve the patient entirely from pressure symptoms. Whether or not it is justifiable to advise the treatment of many cases of fibroids of the uterus, I have not as yet decided. Some cases have shown almost wonderful results, while all cases have responded in some degree to the treatment. The length of time required to reduce such tumors is the great difficulty, since few women have the necessary patience to persist in the treatment long enough to obtain any appreciable results. After all, every abdominal operation has its definite mortality, and would it not be safer to attempt the reduction of such benign growths, provided always that there is no other definite indication for immediate operation? All cases hemorrhaging from fibroids are given ergot and mammary extract, as well as the necessary iron preparations.

Mrs. P.—48 years old. Had hemorrhages from large intra-mural fibroid for the past five years, growing worse from month to month. Had just had a radical operation for carcinoma of the breast, and was in no condition for hysterectomy. This patient received two and three treatments a week for a period covering six months. All bleeding, except a normal flow, stopped after two months, and at the end of six months, the tumor was found to have shrunk to about one-third of its former size. The menopause was established, and the woman gained sixty pounds in weight. That was five years ago, and, although I examine her every six months, there has been no increase in size.

4. *It is in the inflammatory conditions* of the pelvic organs that the greatest care and skill are needed to decide whether or not intra-uterine manipulations are safe. In a general way, I have found that wherever laparotomy is deemed a fairly safe procedure, electrical treatments do no harm. The day of operating acute pus tubes, or curetting every case of septic endometritis, fortunately is passed, since the consensus of opinion now seems to be that the mortality and morbidity are lower if we wait until a protective zone has been formed. After this, it does no harm to gently manipulate the pelvic organs. If the endometrium alone is involved, I dilate the cervical canal sufficiently to allow an application of pure iodine to the entire uterine mucosa, the preliminary dilatation also providing the necessary drainage. Three or four such applications are usually sufficient to clear up these cases.

Salpingitis has meant the needless sterilization of thousands of women. They come to us with chronic tubal trouble, often of years' standing, and because they have suffered so long, a month or two will make no great difference, and that period of time will be sufficiently long to make one last effort to save the tubes. If we find a couple of pus tubes the size of oranges, with dense adhesions to all the surrounding structures, any palliative treatment would be a crime. But in those cases where we have distinct tubal tenderness with some enlargement, but without fixation, especially if we have a positive history of gonorrhoea, it stands to reason that if we can apply some preparation of silver to the tubal mucosa we would get results, and we do get them.

I do a preliminary dilatation in order to insure good drainage, and to permit the easy introduction of a syringe. I use an ordinary one ounce, glass, catheter-tipped syringe. The tip is introduced into the uterine cavity, and from one to four drachms of a 25 per cent. solution of argyrol is slowly injected. The tip of the syringe is held tightly against the external os, to prevent the return flow of the drug during that time. We know that the drug enters the tube, because the patient has pain which begins near the uterus, and travels away from the median line. Radiography is another proof, and in cases thus injected and operated upon immediately afterwards, the injected drug may be seen exuding from the fimbriated end of the tube. The objection to this treatment is that any drug which might reach the peritoneum would tend to cause peritonitis, but when we consider that the peritoneum can well tolerate bichloride solutions, ether, and various preparations liberating formaldehyde, I do not see any logical reason why the peritoneum cannot equally well care for a few drops of iodine or argyrol. If some of the organisms in the tube were virulent, and were carried to the peritoneum, it should be able to care for the infection as well as it does after any salpingectomy, where there are surely many organisms liberated from the cut and bruised tissues removed.

This treatment is only given once in every two weeks, in order to enable the local reaction to subside between treatments.

During the entire period, the patient receives vaccine, the kind given depending upon those organisms found by making smears or cultures. Long, hot douches, in the recumbent position, with the water running at very low pressure, are helpful in breaking up newly-formed adhesions. Any drug may be added to the douche, its real therapeutic effect depending upon the prolonged application of heat. Hot sitz baths are a great help, especially for the relief of pain. The electricity in these cases helps in two ways—it makes intra-uterine and intra-tubal applications of specific drugs possible, and also causes an intense local hyperemia, and, after all, the free circulation of pure blood does more than we can estimate in the care of infections:

Miss D. F.—25 years old. Acute attack of gonorrhea six months ago. In bed for six weeks. Acute tubal infection while in hospital. Advised to have both tubes removed as soon as temperature became normal. Refused operation. I began treatment after acute symptoms had subsided for two months. Vaginal discharge still very profuse, and filled with gonococci. Both tubes enlarged and tender. After twenty treatments, half of which were intrauterine and intra-tubal, all pain has ceased, and the tubes feel normal to the touch. Patient is now able to work and earn her own living, and has hopes that she may have children some day. Whether this girl will ever have a baby, remains to be seen, but at least she has a sporting chance this way, where she had no chance if operated upon.

5. *It is in sterility cases* that we see the best results from electricity, that is, in those cases due to a true stenosis of the cervix, acute antelexion,

subinvolution, infantile uterus and mild tubal infections. Before any treatment is instituted, the husband must be examined, for it has been my experience that nearly fifty per cent. of sterility is due to the husband. We also examine the vaginal secretions, as well as those of the cervix and uterus, from two to six hours after coitus, whenever possible, as an additional aid to diagnosis. The technique for these various causes of sterility have been discussed elsewhere, so I will not repeat them. The general treatment of these cases consists in the proper instruction in sex-hygiene, reduction of superfluous weight, the increase of the hemoglobin where necessary, and gymnastics, or swimming. Internally, either mammary, thyroid or ovarian extract, or a combination of these three substances, is given over a long period of time.

Mrs. O.—25 years old. Married five years. Russian, and very anxious to have children. Stenosis of cervix and acute antelexion. Dilated four times. Conceived two months later, and was delivered of a full term baby, by Cæsarian section, one year after first treatment was given.

6. *The last class of cases* may be grouped under the heading of "ovarian insufficiency" or cases of a very early and abnormal menopause. I have found women, of from eighteen to thirty years of age, having menstruated regularly for years, become suddenly more and more irregular, until they go from three months to one year without any flow, in the meanwhile experiencing all the reflex disturbances of the menopause, but usually in a very aggravated form. Of course, the first thing to do in these cases is to rule out all possibility of pregnancy, which is only done by watching the case for about two months, without attempting any treatment. If the condition has not been of long standing, ovarian extract or the extract of corpus luteum may be sufficient to re-establish menstruation, but when the condition has progressed a year, or longer, glandular therapy alone is not sufficient. I add to all general measures a monthly dilatation, a few days before the date of the menstrual period. After six months, I discontinue treatment for a few months, largely as a guide for future work. In most cases, the flow remains regular and normal in amount. If not, a few more treatments are given, most women preferring this method of treatment to a premature loss of all sex functions. I do not attempt to explain the reasons for the results in this class of cases, except that I believe it due to the intense local hyperemia produced, and perhaps by some direct stimulation of the ovaries. However, since it preserves the patient's sex life, enables her to become pregnant, and, often most important, keeps her from getting fat, it has proved a great aid in my work.

Mrs. S.—28 years old. Two children, younger six years old. For past three years has only been flowing once in every two or four months. Flow very scant. Nervousness extreme. One treatment before each period for six months has established a fairly regular flow, for now she only occasionally misses one month.

In conclusion, let me discuss briefly some of

the objections raised against this form of treatment in gynecology:

Some will immediately say that electricity in some form or other has been used by quacks since time immemorial. Quacks operate as much as we regulars do, but no one calls every surgeon a quack.

Others, label as abortionist any physician who has an intra-uterine sound in the office. No physician has ever practised his profession for even a short period of time without having been called an abortionist, either by a vindictive patient upon whom he has refused to do an abortion, or by some kindly brother-practitioner, who has his own private reasons (?) for the remark. What people say really makes very little difference. If we can cure even a few by a method of treatment more or less in disfavor, we must be broad-minded enough to rise above such trivial standards.

The treatments, in the majority of cases, are more or less painful, depending to a large extent upon the patient's temperament. The best policy is always to tell them that it will hurt, and let them choose before you begin your course of work.

The danger of infection has been fully discussed. If we use the same care in doing any office work that we do in the hospitals, where the nurses watch us, there is no more danger of infection than there is in the surgery.

The last objection raised is that it requires too much time to give treatments of this kind. But the fees for this class of work are, of course, higher than for the standard local treatment, and besides, in the long run, it pays better to entirely cure one case, than to half-cure a dozen.

In conclusion, let me make this positive statement: that the Galvanic current in gynecology is the best single therapeutic agent which I have ever used, and in conjunction with organotherapy, serum-therapy and general hygienic measures, has saved many women from the pain, the horrors, and the uncertainty of the operating room.

SOME INTERESTING SURGICAL CONDITIONS OF THE KIDNEY AND PROSTATE.*

By WILLIAM E. STEVENS, M. D., San Francisco.

Renal Tuberculosis in Children.

The impression is general, even among urologists, that tuberculosis of the kidneys is uncommon in children because in most statistics the ages vary from fifteen to forty years. In my opinion this idea is an erroneous one and arises because of the neglect to examine the urine for tubercle bacilli and the disregard of our more modern urological diagnostic facilities such as cystoscopy, ureteral catheterization, radiography, pyelography and functional kidney tests. Contrary to the opinion of many, a careful microscopical examination of the urine will disclose the presence of tubercle bacilli in a large majority of patients whose kidneys are

infected with this organism and the systoscope can be used in male children as young as sixteen months and the ureters catheterized under three years of age. Females fourteen months of age have been cystoscoped and the ureters catheterized in those of twenty-two months.

We should not be satisfied with a diagnosis of cystitis, which is a symptom rather than a clinical entity, or with that of pyelitis, notwithstanding the fact that the latter is a frequent cause of urinary disturbances in children. The importance of the early detection of renal tuberculosis at the time when it is confined to one kidney and surgically curable in at least eighty per cent. of our cases can not be underestimated.

Although a nephrectomy is not to be lightly undertaken it is nevertheless an operation of necessity in cases of unilateral tubercular involvement. While hygienic and tuberculin treatments are justifiable in cases of advanced bilateral infection, or when operation is absolutely refused, permanent results are seldom obtained with these methods, although many cases in which marked temporary improvement has occurred have been published by a number of observers, one of whom has reported a series of fifty cases clinically cured with tuberculin.

The first case to which I wish to call attention is that of a school girl, nine years of age, who complained of frequent urination and slight pain in the left hip. Her family history was negative. With the exception of the year previous to nine months ago she had always suffered from frequency aggravated by exercise or excitement.

The pain in the hip followed an injury five months before and she had been under treatment for tuberculosis of that joint for the past month.

Examination of the heart, lungs and abdomen was negative.

Catheterized specimens of bladder urine contained a moderate number of pus and blood cells and tubercle bacilli were demonstrated by microscopical examination and guinea pig inoculation. Culture of the urine showed a scant growth of *bacillus mucosus capsulatus* and a few colonies of pneumococci. Cystoscopy revealed a small ulcer partially surrounding a golf hole right ureteral orifice. It was impossible to introduce a catheter over one half centimeter into this ureter on account of stricture. The left ureter was catheterized to the pelvis. The urine from the left kidney contained a few pus cells and Gram positive diplococci but no tubercle bacilli could be found on microscopical examination or animal inoculation.

The phlorizin and urea functional kidney tests showing normal values on the left side an enlarged irregularly shaped right kidney was removed, under gas oxygen anaesthesia.

The wound had healed by the ninth day and the patient was permitted to leave the hospital on the twelfth day following operation.

As can be seen by the specimen the kidney was almost completely destroyed by the caseating cavernous type of infection which was evidently of long duration.

* Read before the San Francisco County Medical Society, November, 1918.

Case 2. A boy thirteen years of age entered the hospital for the removal of adenoids. He had suffered from frequency of urination, occasional night sweats, weakness and loss of weight for the past year. His mother probably died of consumption.

When two and a half years of age a gland was removed from his neck. The tonsils were removed one year ago.

A number of pus cells were found on routine examination of the urine and similar results were obtained from catheterized bladder specimens and in addition a number of tubercle bacilli were demonstrated.

As the meatus was too small to permit the passage of even a small catheterizing cystoscope it was incised under local anaesthesia. Cystoscopy a few days later disclosed a normal bladder wall. Both ureters were catheterized to the pelves and a number of tubercle bacilli found in the urine from the right kidney. That from the left was negative. Indigo carmine injected intramuscularly appeared on the left side in eight and a half minutes and on the right in twenty-six minutes.

The right kidney was removed and four large tubercular cavities found. The patient was out of bed the seventh day, the wound had healed on the fourteenth day and he was discharged from the hospital on the twentieth day following operation. He gained seven pounds in weight during the next two and a half weeks.

These cases emphasize the importance of the early examination of the urine for tubercle bacilli in every child with urinary disturbances. They are of interest because of the advanced tubercular infection occurring at such an early age.

The next case is interesting from a diagnostic standpoint. The patient, a girl of fifteen, entered the hospital complaining of pain in the right lumbar region and the upper and lower right abdominal quadrants.

Family history negative. She had been treated fourteen months before for pain in the right lumbar region accompanied by pus in the urine.

Her temperature, pulse, urine and blood count were normal. Tenderness was somewhat greater on deep palpation at McBurney's point. Radiography showed five or six shadows, probably due to calculi in the region of the left kidney pelvis. Pyelography revealed an enlarged right renal pelvis. Indigo carmine injected intravenously appeared at the left ureteral orifice in five minutes but none could be detected on the right side in one-half hour. Further examination was refused.

Following a provisional diagnosis of appendicitis the abdomen was opened and an appendix not definitely pathological removed.

Notwithstanding the abnormal condition of the upper urinary tract the lumbar and abdominal pain disappeared following the appendectomy.

In view of the findings treatment directed toward the urinary tract would have been justifiable but probably no improvement would have resulted. On the other hand a more common mistake is the removal of a normal appendix following a diagnosis

of appendicitis in pathological conditions of the right ureter and a kidney.

Renorenal Reflex.

The first of the following cases is illustrative of the renorenal reflex. The existence of this symptom has been questioned by some authorities but the report of a number of authentic cases proves that although much less common than vesicorenal reflex it undoubtedly occurs.

A. H., a male thirty-eight years of age entered the hospital complaining of pain in the right lumbar region and the upper and lower right abdominal quadrants. During the past fourteen years he had occasionally passed gravel and noticed some blood in the urine. He had a poor appetite and was weak. Examination of a catheterized specimen of bladder urine revealed a few pus cells but that from the right and left kidney was negative. Radiography and pyelography revealed the shadows of two calculi in the upper pole of the left kidney. Comparative and total functional kidney tests gave normal values. Following nephrotomy and removal of the calculi from the left kidney the pain entirely disappeared from the right side and has not returned.

Prostatic Calculus.

The following case is of interest because of the unusual size of the prostatic calculus. It weighs over fifty grams. Formed primarily in the upper urinary tract it probably lodged in a pouch or diverticulum of the prostatic urethra, there increasing in size. True prostatic calculi on the other hand are formed in the gland proper, are much smaller and are usually multiple. I have succeeded in removing a number of the latter as well as smaller stones in other portions of the urethra with long urethral forceps through an endoscope.

This patient was a laborer thirty-two years of age who entered the hospital suffering from frequent and painful urination. He also complained of soreness in the perineum, worse at night, pain in both lumbar regions, worse on the left side, and diarrhea.

A sister had tuberculosis.

He had contracted gonorrhea twelve and again five years ago.

His symptoms began one and a half years ago. He passed some gravel seven months ago. For the past six days it had been impossible for him to work on account of weakness and diarrhea.

On attempting to introduce a soft rubber catheter an obstruction was encountered in the prostatic urethra and agonizing pain of several minutes' duration resulted. On the following day an unsuccessful effort was made to introduce the cystourethroscope, first under local, then under general anaesthesia. A metallic click was elicited by contact of the instrument with a hard foreign body which completely obstructed the ureter. Seven hours later, no urine having been voided and the abdomen being distended and painful, the urethra was opened through the perineum and a large calculus grasped with forceps. During the attempt at removal the stone was crushed and as it was

impossible to remove some of the larger fragments which were wedged in the urethra at the neck of the bladder and as no urine had escaped, it was considered advisable to open the latter suprapubically. All fragments of the calculus were then removed and a retention catheter readily inserted through the external meatus into the bladder. The patient is now up and around, seventeen days after operation; he passes urine without distress through the urethra and the wounds are healing rapidly.

Prostatic Hypertrophy

The history of the following case is typical of the majority of cases of prostatic hypertrophy. It is interesting to note however that notwithstanding the enormous size of the gland and the complete retention of urine the patient had not complained of subjective urinary symptoms previous to a few days before entering the hospital. The specimen weighed two hundred and fifty-six grams and is the largest I have seen recorded. It was impossible without section to remove it through the opening in the bladder wall. Convalescence following operation was prolonged but complete recovery resulted. When seen a few months later the patient said that he felt and he certainly looked many years younger.

Shreve Building.

Los Angeles County Hospital

By Norman R. Martin, Superintendent of Los Angeles County Charities and Hospital.

We have many daily requests for information regarding the operation of the Los Angeles County Hospital and the working organization of the Los Angeles County Department of Charities; and it may be interesting to your readers to know that the department consists of all the public charities which are supported or maintained by the County of Los Angeles, including the County Hospital, the County Farm, Olive View Sanatorium, the County Cemetery and all outdoor relief—the latter including since July 1, 1915, the relief work of the City of Los Angeles as well as that of the county. Each activity is designated as a "division" of the department. There is no private relief organization that cares for great numbers of the indigent class, as in other large cities, and this county organization attempts to perform all the functions ordinarily performed by both public and private relief societies.

The department is strictly non-political and non-sectarian. All purchases are made through the County Purchasing Agent on formal written requisitions, approved by the Superintendent of Charities. The county charter prescribes that "the Superintendent of Charities shall be under the direction of the Board of Supervisors, and shall exercise a general supervision over, and enforce rules and regulations for the conduct and government of the charitable institutions of the county." All employees of the department are selected from eligible lists furnished by the Civil Service Commission and are appointed by the Superintendent of Charities. The Superintendent of Charities is selected from similar eligible list and appointed by the Board of Supervisors.

The Los Angeles County Hospital is located at 1100 Mission Road, Los Angeles, and consists of thirty-five acres of land with twenty-two buildings, costing with equipment approximately two million dollars to date. Its equipment is modern and up-

to-date. This hospital is the third largest institution of its kind in the United States, consisting of 1283 beds and caring for upwards of 1000 patients at all times, which population increases during the winter months to capacity.

It must be understood, however, that other large cities the size of Los Angeles have many similar institutions, where it has none. The county takes care of all the sick poor of both city and county, and this in a community of nearly one million people, naturally requires larger quarters than when there are duplicate institutions. There is still another reason for the great demand for entrance to this hospital, viz., all classes of disease are admitted except smallpox. More than 14,000 patients are admitted and discharged each fiscal year. Fifty-seven different nationalities were treated last year; 59 per cent. were of American birth and 41 per cent. alien. To care for this small village of patients requires over 30 graduate physicians, 175 nurses and 200 miscellaneous officers and employees. There is a large staff of attending physicians, consisting of the leading medical men of the city, all of whom serve without compensation. A three-year training school for nurses is maintained, upon a high standard.

Formalities connected with patient admittances are practically done away with. The applicant presents himself or herself at the hospital, if able to do so; otherwise an ambulance is sent. The patient is examined by an admitting physician; the personal history and some clinical data are taken immediately; and after certain examinations and bath the patient is transferred to the proper ward. Four ambulances are in constant service.

One hundred and forty employees are organized into fire companies, and fire drills are held weekly. Fire-alarm boxes auxiliary to the city system, and connected therewith, are installed in each building on the grounds. An alarm automatically blows a whistle in the power plant upon a code signal system, indicating the location of the fire. At our request, the City Fire Department supervises hospital drills from time to time. All equipment, including hose, nozzles, hydrants, ladders, fire extinguishers, chemical wagons, etc., are standardized with the Los Angeles Fire Department equipment, obviating any delays in fighting fire. In a recent test, forty stretcher patients were taken from one of the buildings to a place of safety in two and a half minutes.

A most up-to-date psychopathic hospital, which is considered the best upon the Pacific Coast, and the equal of Boston and Baltimore, is a portion of the institution. Here hydrotherapy treatment is given while inmates are under observation before commitment to a State institution. A court-room for the examination of patients by the Lunacy Commission is provided in this building, to do away with the necessity of transferring such unfortunates to and from the Court House for their examinations.

An observation cottage houses children who are brought to the hospital and upon whom diagnosis has not been positively determined. If they are suspected of being affected with some contagious disease, they are retained in this department until that fact is determined, thus preventing the spread of contagion in the regular children's department. If contagious disease develops, they are then taken to the proper contagious ward.

The children's ward is always an interesting as well as pathetic feature. There is a room in connection with the ward where these children receive the heliotherapy treatment. Some of these little ones are stretched on frames and strapped on different kinds of supports and extension apparatus for months on account of diseased spines or hips, or broken bones. They are always delighted to see visitors, as many of them have no friends. A recent innovation has been to employ a teacher to give them elementary instruction, and at certain

times of the day those who are able to get out on the grounds are taken by this teacher, who reads to them and amuses them in various ways.

The X-ray department has been equipped with the very latest and most complete appliances, including the necessary equipment for fluoroscopic examinations for stomach and intestinal affections.

The pathological department consists of two laboratories, one for the daily record work by internes and the other for more minute, extensive or complete tests, such as Wassermann tests, and the making of serums, vaccines, etc. Chemical analysis of water, milk, etc., is also made in this department.

One dentist and one oculist are valued adjuncts.



The Los Angeles County Library has established a branch in connection with the hospital, where patients may secure papers and books. One of the librarians makes daily rounds of the wards and supplies the wants of patients who are permitted to read. The patients in contagious and tuberculosis wards are not allowed to use the books in circulation in other wards, but have a separate supply. Particularly for hospital staff use, extensive medical and surgical journals are supplied.

The leper colony is an interesting feature to some persons, although visitors are not allowed in the enclosure. It is the only such colony in the southern part of the State, and generally has from five to eight inmates. The men raise some vegetables and flowers and try to make the place livable and a little brighter.

There is a social service department at the County Hospital, with three employees. This department is doing excellent and remunerative work. There is no question but that a well-organized hospital service department increases to a marked extent the efficiency of the hospital. In her work, the social worker is an aid to the physician in ascertaining circumstances which may have a bearing on the condition and the treatment of the patient. She is also an aid in following up such patients to see that advice is carried out and such home conditions secured as are suitable for complete recoveries. An important function of such workers is to supply the human touch which is so often needed to counteract the institutional atmosphere of systematic, machine-like operation.

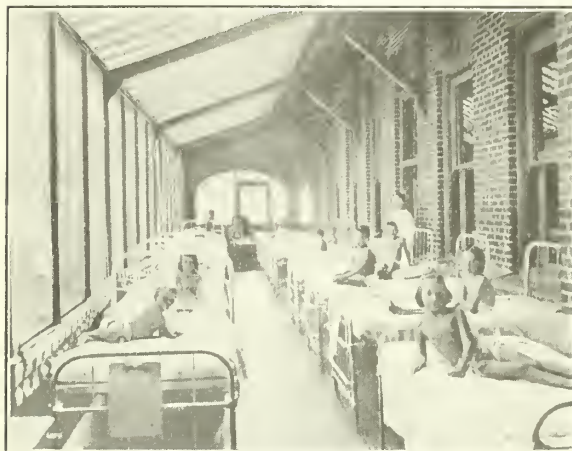
Constant religious services and ministrations are furnished by Protestant clergymen and Catholic priests, who are paid by outside agencies. A chapel upon the grounds is available at all times.

A new power plant, costing about \$100,000, has just been completed. Ample facilities are provided thereby for the generation of electric current, vacuum cleaning, steam heating, laundry work, etc.

A new service building has just been completed and is practically ready for occupancy, costing ap-

proximately \$125,000. This is a five-story-and-base-ment building, fire-proof, with the kitchen on the top floor, modernly equipped in every particular. At the present time we have eleven dining rooms and five kitchens upon the property, and these will all be housed in the new service building when it is put into operation.

Work has just been commenced upon the first unit of a new, modern and up-to-date nurses' home; present contract, \$50,000. It is expected that the completed institution will cost approximately \$150,000. In addition to the sleeping quarters, it will contain ample class rooms, demonstration rooms, laboratory, social quarters, recreation facilities, etc.



CHILDREN'S SUN ROOM

As an adjunct of the County Hospital we are now constructing a new tuberculosis sanatorium, called "Olive View," four miles from San Fernando in the valley of that name, and twenty-five miles from the County Hospital. This is located at an elevation of 1500 feet with a beautiful valley and mountain view, and many ideal conditions for the class of patients it will accommodate. We expect it to be ready for occupancy about July 1, 1919.

We are always glad to answer inquiries regarding our work and show about the institution visitors who are interested in a friendly way, health conditions permitting.

1100 Mission Road.

TUBERCULOSIS AFTER INFLUENZA

According to Mrs. E. L. M. Tate-Thompson, Director of the bureau of tuberculosis of the State Board of Health, California will be obliged to increase the number of its beds by at least one-third in the tuberculosis sanatoria of the counties. Patients who have not made a complete recovery from influenza and pneumonia will find the aftermath, in many instances, to be tuberculosis. Already some of the counties are making haste to provide more beds. Considering the fact that no community in the state escaped the epidemic, much work will need to be done by the city and county visiting nurses in following up by house visits the people who were ill, and in warning them that the utmost care must be taken of themselves, and to observe whether they need a physical examination to detect tuberculosis. This is the time when an ounce of prevention is worth a hundred pounds of cure. The unaccounted tired feeling, the loss of weight and appetite are danger signals that must be heeded. The public must have at least learned by this time that it is well to beware of the man and woman who cough and sneeze in the faces of people near them.

Book Review

A Handbook For School Nurses. By Kelly and Bradshaw. 109 p. New York: Macmillan Co. 1918. Price \$1.00.

This concise and splendidly written handbook is a valuable acquisition to the subject of health work in the school. The school nurse is now universally considered a most potent auxiliary to modern educational methods, and sine qua non to the successful administration of health work in the schools. Many of her activities, particularly those of a social worker, can not be properly recorded. She is one of the greatest ameliorating forces in the entire field of preventive medicine because she works among the children who are the potential citizens of tomorrow. T. D. M.

Surgical Clinics of Chicago. Volume 2, Number 6 (December, 1918). Octavo of 203 pages, 63 illustrations. Philadelphia and London: W. B. Saunders Company. 1918. Published bi-monthly: Price per year, paper, \$10.00; cloth, \$14.00.

Contents: A. D. Bevan: Acute necrosis of the thyroid gland. Senile gangrene. Undescended testes. Chronic vicious cycle following gastro-enterostomy. Prostatic Obstruction. Rupture of Urethra. T. J. Watkins. Perineorrhaphy—a simple and efficient operation. G. E. Shambaugh: Discussion of clinical problems relating to facial tonsils. A. J. Oehsner: Compound comminuted fracture of both bones of leg. Plastic on face. H. L. Kretschmer: Hemetura and purpura. Carl Beek: Reconstruction of ears and nose. L. L. McArthur: Fibromyoma of stomach simulating stomach ulcer. C. M. McKenna: Ureteral stone—subsequent history. Varicocele operation. Stone in bladder complicated by a colon bacillus infection. M. A. Bernstein: Treatment of early and late infections of the hand and fingers, with special reference to tendon transplantations. Acute infection of little finger. Acute infection of index finger. Destruction of tendons as a result of an infection of the ring finger—tendon transplantation. Ankylosis of index finger.

Medical Clinics of North America. Volume 2, number 2 (September, 1918). Octavo of 330 pages. Philadelphia: W. B. Saunders Company. 1918. Published bi-monthly. Price per year, \$10.00.

W. C. Gorgas: Clinical research in United States army base hospital. W. W. Hamburger: A study of the epidemics of pneumococcus infections, and streptococcus infections, and measles, at Camp Zachary Taylor, 1917 to 1918. W. G. MacCallum: Pathology of the streptococcal pneumonias of the army camps. E. H. Goodman: Results of the examination of 23,943 drafted men by the cardiovascular board at Camp Jackson. S. C. Channing Frothingham: Function of a base hospital in a national army cantonment. W. W. Herrick: Meningococcic pericarditis. M. H. Kahn: Paroxysmal tachycardia in soldiers, clinical and polygraphic studies. E. P. Joslin: Postoperative pneumonia. Harlow Brooks: Neurocirculatory asthenia. Epidemic parotitis as a military disease. F. W. Peabody, J. T. Wear, and E. H. Tompkins: Basal metabolism in cases of the "irritable heart of soldiers." Lawrence Litchfield: Notes on the diagnosis of acute infections in the thorax. J. L. Miller and F. B. Lusk: Empyema at Camp Dodge. J. C. Friedman: Subacute and chronic mediastinal complications of measles. Comments on the methods employed in preventing measles complications. R. L. Cecil: Pneumonia and empyema at Camp Upton. N. Y. C. L. Mix: Anthrax. D. J. Frick: Cardiovascular diseases at Camp Beauregard, La. J. M. W. Scott: Drug addiction. M. L. Lerner:

Marie's disease. Infantilism. Hyperkeratosis. Sub-elavian aneurysm. T. D. Coleman: Clinical significance of cardiac murmurs. C. S. Williamson: Prevention of communicable respiratory diseases.

The Wassermann Test. By Chas. F. Craig, Lt. Col. U. S. A. 239 pages. St. Louis: Mosby, 1918.

This book is to the reviewer a disappointment. This feeling is also voiced by the author in his preface, in that the duties and stress of war have prevented him from fulfilling a work that he had originally set out to do. Much of the subject matter and the writer's general attitude toward the Wassermann reaction is limited to and influenced by his own methods of technique. This calls for a fractionated anti-human hemolytic system, dried amboceptor, alcoholic extract and cholesterol fortified antigens and warm fixation. The test is not quantitative and the dose of complement used may be scant or excessive, in that it is not titrated in the presence of antigen and the human serum to be tested. Although it is without the scope of this review to analyze this method in detail, it must be emphasized that this method probably meets the requirements of institutions and military posts, where frequent repetitions can be made and where a better correlation of laboratory and clinical findings can be effected; but in general practice it will be found far from adequate.

The author's statement that cholesterinized antigen is entirely trustworthy and does not occasionally give spurious positive fixations, is not sustained by the observations of serologists in general. With its value as a control of treated cases we are thoroughly in accord. We find no mention made or attempted explanation of that group of serums reacting negatively with cholesterolized antigen but positive with plain antigen. The author also depreciates the use of an anti-sheep hemolytic system, unmindful of recent demonstration of the negligible element of native anti-sheep hemolysins.

Noguchi's older test, the Hecht-Weinberg and the Hecht-Gradwohl modifications are presented without comment. Of the more quantitative tests, the test of Kalmer is touched upon, no details of the Browning and McKenzie method are given, and no mention of the Thomas and Ivy method or Ottenberg's combination of the latter with Thomsen's method are made.

The author has apparently had no experience with cold fixation and is inclined to delay its inauguration until further demonstration. We feel that this simple step has done more than anything else to enhance the value of the reaction.

Fixation results, by the author's technique, in syphilitic cases in various stages, as well as treated cases, are given. These conform with generally reported statistics, but not as high as reported by serologists using cold fixation. No report on false positives is made.

Examination of the cerebrospinal fluid by Wassermann and colloidal gold test are included.

E. A. V.

Genito-urinary Diseases and Syphilis. By Henry H. Morton; 4th ed.; 330 illustrations; 36 plates; 807 pages; St. Louis: Mosby, 1918. Price \$7.00.

This interesting book presents with but few exceptions the most recent and generally accepted ideas upon genito-urinary diseases and syphilis. It contains about two hundred more pages than the former edition, as well as a much larger number of illustrations and colored plates. The latter are as good as those usually found in text-books.

In the opening chapter, under the subject of turbid urine, the author states that if in using the two glass test the second urine is found to be clear, the presence of posterior urethritis may be excluded. This is not in accord with the general

opinion which recognizes the fact that a mild degree of posterior urethritis may exist without sufficient pus to produce a cloudiness of the bladder urine.

In the chapter on functional kidney tests the author fails to mention the value of phenolsulphonephthalein and phlorizin in tests of comparative renal function, the field in which the latter glucosid attains its greatest usefulness. In the discussion of the indigo carmine test, the importance of the intensity of color of the ureteral spurts is not taken into consideration. Intramuscular injection of all three agents is recommended, whereas intravenous administration is now considered superior in most respects to the former method.

In the section on cystoscopy and urethroscopy the Nitze type of cystoscope is recommended, but the Brown-Buerger cystoscope and the McCarthy cystourethroscope, more popular instruments in this country, are not described. The latter have the advantage of being manufactured in the United States.

The author is certainly to be congratulated upon his results in the treatment of chronic prostatitis. No new therapy is suggested, but he has been able to obtain a cure in ninety-seven per cent. of his cases with the older methods, other than prostatectomy.

In the interesting chapter on gonorrhoea in women, attention is called to the necessity for treatment of involved urethral glands, a procedure frequently overlooked. Although the injection method is advised in the treatment of chronic infections of the glands of Bartholin, it is impossible to cure the majority of cases in this manner. Experience has shown that complete removal is required.

A number of pages are devoted to the subject of prostatic hypertrophy, operative methods receiving special attention. Due emphasis is placed upon the importance of careful pre-operative and post-operative treatment, the former being now considered the most important part of the operative procedure.

In the chapter on stone in the kidney and ureter the author neglects to mention the wax-tipped catheter, at times a valuable aid to diagnosis.

The section on syphilis, although concise, covers the field in an interesting and instructive manner, this edition containing a discussion of central nerve lesions, including intraspinal therapy, which is strongly advocated.

Taken as a whole this work is complete and will form a valuable addition to the library of both urologist and general practitioner.

W. E. S.

White & Martin's Genito-Urinary Surgery and Venereal Diseases. By E. Martin, B. A. Thomas and S. W. Moorhead. Illustrated. 929 pages, 10th ed. Philadelphia and London: Lippincott, 1917.

In this volume an effort is made to include a discussion of all the essential conditions suggested by the title, including a study of syphilis. It may be stated at once that the authors have succeeded very creditably in this difficult task. When one examines the various chapters, one sometimes marvels that so much material could be presented in so small a space. On the other hand, one is occasionally disappointed to find only very brief and perhaps perfunctory treatment of certain subjects. This occasional brevity is inevitable since a full discussion of each subject would require not one, but many volumes.

The opening chapters deal with the general examination of the patient, including history taking, urinalysis and kidney function tests and special urethroscopic and cystoscopic examinations. These subjects are disposed of in fifty-seven pages. Un-

questionably, this is too limited a space in which to adequately present the many points of importance that should be discussed.

The next chapter on Suppression, Retention and Incontinence of Urine, is well presented, and the same may be said of that on Surgery of the Penis.

Gonorrhea and its complications are discussed in abbreviated form, hardly full enough when one considers the essential importance of the subjects. However, each sentence in these chapters seems to have been constructed with the view of saying the most in the fewest words and one is surprised at the inclusiveness of the discussion.

Stricture of the urethra is well presented. It is interesting to note no definite statement is made that would enable one to determine the presence of stricture of large caliber. The old Otis rule with a dropping of 2-4 numbers in the size of the sound is given as an average scale in the selection of the bougies for examination. The authors seem to believe in the existence of a relationship between the size of the penis and the caliber of the contained urethra, but this is an inference rather than a direct statement. To the reviewer it seems that in a text-book intended for medical students very definite statements on these points should be made, since the success in the treatment of stricture is so intimately bound up in a clear understanding of just what the stricture is, and of its relation to the normal urethral caliber.

Surgery of the Testicles as presented is very satisfactory. One could wish, however, that more attention had been given to the radical treatment of tumor of the testicle. The statement is made that orchidectomy, as usually performed, has an ultimate mortality of 100 per cent., but the operation of extensive dissection which is more promising, is dismissed in one sentence.

In the treatment of hydrocele no mention is made of the method adopted by the elder Keyes of injecting pure carbolic acid.

The Surgery of the Prostate is well presented in condensed form and appears to have been written by one who had a definite idea of what he had to say and who did not need to make use of padding in his description.

The chapters on sexual abnormalities are short, but the subject is well presented.

The surgical affections of the bladder, ureter and kidneys are presented a little more fully. In the section on extrophy of the bladder, too little attention is paid to the subject of surgical treatment. The student will need to look elsewhere for adequate presentation of the subject. The same may be said of diverticulæ of the bladder. The section devoted to treatment of tumors of the bladder is so short as to be disappointing.

Tuberculosis of the kidney appears to be fairly well presented. In the judgment of the reviewer, far too little attention is paid to the importance of animal inoculation in the diagnosis. While this method of diagnosis is slow, it has so much in its favor from the standpoint of definiteness that it should not be neglected if laboratory facilities are available. The treatment of renal tuberculosis is disposed of in less than half of one page.

The last 230 pages of the book are devoted to the subject of syphilis. By a careful perusal of these pages the student may gain a working knowledge of the subject. If he desire more than a working knowledge, he must consult larger treatises. It seems almost unfair to a disease, so important, so common, and so far reaching in its effects, to attempt a presentation of its baffling symptoms, its multitudinous pathology, and its difficult treatment, in a few pages at the end of a volume.

In conclusion, the reviewer lays the volume down with mixed feelings of surprise at the conciseness and inclusiveness of many of its descriptions, and of disappointment at the inadequacy of some of its statements.

R. L. R.

Correspondence

WHAT'S THE ANSWER?

To the Editor:—During the recent flu epidemic I had a family in which four persons were ill at one time.

Two nurses were engaged, one for a twelve-hour day shift and the other for a twelve-hour night shift.

The Nurses' Association's charges are \$5.00 a day for the first patient and \$2.00 additional for each additional patient, making \$11.00 per twelve-hour service, for each nurse, or \$22.00 for twenty-four hours.

If one nurse had been engaged for all four patients and she had worked for twenty-four hours, it would have been \$11.00 per day.

If the two nurses had been employed to care for two patients each and each nurse had been on duty for twenty-four hours, they would be entitled to \$7.00 a day each or \$14.00 for two nurses.

If four nurses had been employed for twenty-four hours each, each nurse would have been entitled to \$5.00 a day, or \$20.00 for the four.

To Summarize:

Nurses	Cases	Service	Per Day	Per Week
2	4	12-hr.	\$22.00	\$154.00
2	2	24-hr.	14.00	98.00
1	4	24-hr.	11.00	77.00
4	4	24-hr.	20.00	140.00

The father of the family, a contractor, states that I am at fault in that I did not engage them under the two-nurse two-case, 24-hour service plan and saved him \$56.00 per week.

Can the Nurses' Association supply me with the correct answer?

J. C. EGERBERG, M. D.

Central Emergency Hospital, San Francisco.
Department of Public Health, Emergency Hospital Service, Office of the Chief Surgeon.

LICENSURE OF PHYSICIANS FROM MILITARY SERVICE.

Sacramento, Cal., January 24, 1919.

To the Editor:

Conforming with your recent request, arising from a statement which we are advised recently appeared in the American Medical Journal to the effect that officers of the Medical Corps were entitled to a certificate to practice medicine and surgery in the State of California on a record of their commission or honorable discharge, we beg to advise that Section 12 of the Medical Practice Act provides for the issuance of a certificate to a commissioned officer of the Medical Department of the Army, Navy or Public Health Service who is "honorably discharged or temporarily detached, or placed on the retired list without being discharged, or on active duty. . .," providing that the standard of the examination which preceded the issuance of the commission as above noted, was equal to the standard of the examination exacted of applicants for a written examination for a physicians and surgeons' certificate in the State of California on the same date.

You will note the proviso clause in Section 12 reads as follows:

"provided that when it appears to the satisfaction of the board, that in the year in which the applicant was appointed or commissioned in the United States Army, Navy or Public Health Service, that the requirements of such service for such appointment or commission were in any degree or particular less than those which were required for the issuance of a similar certificate to practice in California at the date of such issuance, then the board in

its discretion may refuse to issue such certificate;"

Should the proviso clause of Section 12 result in the board denying an application based thereon, the applicant then has recourse to the provisions of Sections 9, 10 and 11, relating to the issuance of a certificate after a written examination, or said applicant has recourse to the provisions of Section 13, regulating the issuance of a Reciprocity Certificate.

The board is in receipt of a large number of requests for information based upon the article first mentioned as appearing in the American Medical Journal, and we believe that the facts set forth herein should be presented to the readers of your Journal, as well as the readers of the American Medical Journal, to whom we have forwarded a copy of this communication.

Yours very truly,

C. B. PINKHAM, M. D.,

Secretary-Treasurer, Board of Medical Examiners, State of California.

WORKMEN'S COMPENSATION RED TAPE.

Visalia, Cal., February 12, 1919.

To the Editor:

In the February issue of your journal you invite the profession to send in their views concerning the relations and working of the Workmen's Compensation Insurance and Safety Act and the physician. As you say, "The Workman's Compensation IS and WILL BE." Amen! I am for it; it was a long step in the right direction when that particular act was created by our law makers, but may I voice a feeble protest regarding the real hardship and inconvenience needlessly forced upon the doctor by that act. I refer to the intricate method of reporting cases to the Industrial Accident Commission and to the numerous casualty insurance carriers.

If the Industrial Accident Commission and the many and various casualty insurance carriers WOULD or COULD BE FORCED to get together and adopt a uniform system for reporting the accident cases, then the task of the attending physician would be easy and simplified and there would not be so much dissension over the low fee schedule. At the present time every insurance carrier as well as the State Industrial Accident Commission have a different form and system for reporting the cases, and as a rule, they will not accept a report unless it is on their own form-blanks. Every blank has a different set of queries and the answers, if they can be obtained at all, cause the doctor no end of time and trouble.

As a small town country practitioner, here is an example of the red-tape task the doctor must perform for each and every accident case that enters his office. (I refer more particularly to the minor cases; the serious or major cases are so few in number in comparison with the minor cases.)

Example: Mechanic from local garage gets few particles of emery or steel dust in the conjunctiva. He rushes to his doctor and gets the foreign bodies removed from the eye. With the possible exception of infection, the case is finished as far as treatment is concerned—BUT—the doctor must look to the insurance company for his fee; he must also make out a report to the Industrial Accident Commission; he must find out any way that he can, the name of the casualty insurance carrier which the mechanic's employer has chosen to patronize. Nine times out of ten the mechanic does not know and very often the employer himself does not know the exact name or the address of the company, so the local insurance agent must be searched for and consulted. The doctor now finds that it is another company than those represented by the various blanks which fill his filing cabinet. He must write a letter to the company for the correct blanks and then answer the ques-

tions asked thereon; generally having to look up both the mechanic and the employer again to get the correct answers. Doctor now makes out 'a first report' and 'a final report' and an itemized bill, and two (\$2.00) dollars is all that he is allowed for his trouble.

Slivers of wood and steel, small cuts and burns; all are simple treatments but complex and time absorbers to report. Many, many times I have made out a brief report to the Industrial Accident Commission (forced to do so) then let the fee be lost rather than take the time to secure all the proper blanks and data and look to the casualty insurance carrier for a settlement. The doctor must earn thrice the fee allowed before he gets anything.

A very good feature in the doctor's favor is—the money is as good as collected, for the insurance companies are good pay. Why cannot this illimitable red-tape reporting be simplified or the fees trebled that we may keep an extra office assistant for that work. This reporting is the only bug-bear that I have to contend with in my little country town. I wonder if I have not voiced the opinions of hundreds of my fellow practitioners?

Fraternally yours,

H. A. TODD, M. D.

State Society

The offices of the State Society have been running very smoothly in the past few months and have been rather busy trying to keep up with the many changes which have occurred in the location of members throughout the State. Many hundreds of our physicians have entered military and naval service, and at times we have been unable to know when they left or where they were. In some instances we have sent notices for the \$2.00 war tax to men who were in the service, but this has only resulted because these men were not reported through their county secretaries to the State office.

Men who are discharged from the Army or Navy during the coming year will still be carried by the State society without the payment of dues, unless such dues are offered voluntarily to the county organization. Some men prefer to re-establish themselves properly in this regard.

The office of the State society will make every effort to assist returning members in obtaining new locations, if they so desire. Many positions are available for men in various towns, mining camps, on sailing vessels and in other ways; all of which we keep listed in the office.

The Council of the State society has not met during the past few months because of the epidemic of influenza, but the publicity bureau has convened periodically and conducted the essential business of the society during the interim.

The State Meeting of the Medical Society will be held at Santa Barbara April 15th, 16th and 17th. This should be very largely attended, both because of its central location and because of the interesting, profitable program which will be presented at that time. Efforts will be made to obtain the best rates possible from the hotels and railroads. Further notice will be given regarding the meeting, the railroad fares and hotel rates. We feel that our physicians have earned a well-deserved rest after the past strenuous months, and a few days spent at Santa Barbara will have a reviving influence upon them.

The work of the legal department during the past summer has not been as heavy as usual. Suits for alleged malpractice have rather fallen off during the period of war, but some of our best men throughout the State have nevertheless been most unjustly attacked from time to time. Our defense

of these cases has been most satisfactory, and not a single member of the Indemnity Defense Fund has had a judgment rendered against him. It behooves all members at the beginning of this year to take advantage of this splendid scheme for financial protection. Join the Indemnity Defense Fund. The assessment still remains the same, \$30.

County Societies

FRESNO COUNTY.

At the last meeting of the Fresno County Medical Society, the following officers were elected:

Dr. B. B. Lamkin, president; Dr. J. D. Morgan, vice-president; Dr. C. L. A. Rinker, second vice-president; Dr. W. E. R. Schottstaedt, secretary; Dr. A. D. Ellsworth, asst. secretary; Dr. T. M. Hayden, treasurer.

To replace Dr. J. R. Walker, the retiring member of the Board of Governors, Dr. J. R. Walker.

LOS ANGELES COUNTY.

With the beginning of the new year new activities have been inaugurated by the Board of Councilors.

Dr. Harlan Shoemaker, the secretary-treasurer, has enlarged the Bulletin with advertisements to help pay for the issue. A nurses' bureau will be opened in the secretary's office, 621 Marsh-Strong Bldg., where recommended nurses can register so that physicians and surgeons can secure promptly at any time the services of competent and responsible nurses. The Board of Councilors have also voted to revise the constitution and by-laws to obviate refunding a portion of the dues to the branch societies. The services of the Press Clipping Bureau will be dispensed with for the present.

The first regular meeting at the usual time and place was held January the 16th, 1919.

Dr. W. T. McArthur presided. In wishing all a happy new year he dwelt upon the devotion to duty of the members of the society. Those returning from the war will now have to build up their relinquished practice. They have vindicated their right to live. Some will never return; they have made the supreme sacrifice.

(See paper No. 1.) (For papers presented see April issue of Journal.)

The president, Dr. W. T. McArthur, then asked the chairman of the committee appointed by him, to read the vote of thanks on behalf of the society to Dr. Geo. H. Kress, the retiring secretary-treasurer, whereupon the president presented in fitting words the beautifully engrossed, illumined and framed document together with the appropriately engraved gold watch as a token to Dr. Kress.

Whereas, Geo. H. Kress, B. S., M. D., retiring secretary-treasurer of the Los Angeles County Medical Association, during his long term in office of nine consecutive years, has served faithfully in that capacity, and by his indefatigable efforts has built up the Society from a small organization to one of the biggest and most efficient in the land, and

Whereas, He has added many useful and profitable features which have proven of inestimable value to the members of the Society, and

Whereas, His loyal devotion to duty, his love for the work, his ability and versatility in its performance, his uniform courtesy and helpfulness to all members consulting or co-operating with him in everything appertaining to the welfare of the Society and its members, are herewith officially recognized, acknowledged and appreciated by his fellow-members; therefore be it

Resolved, That the Los Angeles County Medical Association as a whole and its many members

individually, one and all give him herewith a vote of thanks and a suitable token as an expression of our appreciation which no one could possibly merit more than he, and that while regretting the loss to the Society by his retirement as secretary-treasurer, we hope and wish that the well-earned rest from such arduous labors may redound to his advantage in health and happiness with the consciousness of "duty well done." And be it further

Resolved, That we assure him of our profound sense of gratitude; that we esteem, honor and love him for his many good qualities, his strong, upright, loyal character and his personal worth. And be it also

Resolved, That the secretary be instructed to spread these resolutions upon the minutes of our Society and publish the same in the Bulletin and that a reprint be forwarded to Dr. Geo. H. Kress with the token and another reprint filed in the archives of the Society.

WILLIAM WENZLICK, LL.B., M.D.,
FITCH C. E. MATTISON, M.D., F.A.C.S.,
ALBERT SOILAND, M.D., F.A.C.P.,
Committee.

Dr. Kress in replying expressed his appreciation of the generous thought and expression of the Society in thus thanking him for whatever part it might have been his privilege to play in the last nine years as the executive officer of the Association. He added also that for himself, there had been so much pleasure in the work of trying to have the County Society develop into a strong county unit, that he felt that it had been himself rather than the Society which was under obligations. He stated also that he felt sure that with the same spirit of co-operation as had existed in the past, and by holding fast to the fundamental framework of the constitution there could be little doubt but that the Association would move forward in the future as in the past.

Officers for the Year 1919.

W. T. McArthur, M.D., 836-7 Security Bldg., president; H. G. McNeill, M.D., Exchange Bldg., vice-president; Harlan Shoemaker, M.D., 621 Marsh-Strong Bldg., secretary-treasurer, editor of the Bulletin, chairman of the Scientific Program and Telephone Exchange Committees.

Board of Councillors.

W. T. McArthur, M.D., chairman (ex-officio); Harlan Shoemaker, M.D., secretary (ex-officio); H. G. McNeill, M.D., (ex-officio); H. Bert Ellis, M.D., 1919; W. W. Richardson, M.D., 1919; Granville MacGowan, M.D., 1919; G. L. Cole, M.D., 1920; Dudley Fulton, M.D., 1920; F. C. E. Mattison, M. D., 1920; Stanley P. Black, M.D., 1921; Wm. Duffield, M.D., 1921; L. M. Powers, M.D., 1921; Irwin L. Magee, M.D., (Santa Monica); Chas. L. Bennett, M.D., (Pomona); Roscoe C. Olmstead, M.D., (Pasadena); Francis L. Rogers, M.D., (Long Beach); G. L. Kelsey, M.D., (Eye and Ear).

Branch Officers. Pomona.

Chairman, Ward L. Fisher, M.D.; vice-chairman, F. W. Burns, M.D.; councillor, Charles L. Bennett, M.D.; secretary-treasurer, Paul W. Newcomer, M.D.

Long Beach.

Chairman, G. H. Galbraith, M.D.; vice-chairman, Bernard Oettinger, M.D.; councillor, F. L. Rogers, M.D.; secretary-treasurer, Frank M. Mikels, M.D.

Santa Monica.

Chairman, Dr. E. E. Roberts; councillor, Dr. I. N. Magee; secretary-treasurer, Dr. C. P. Thomas.

Eye and Ear.

Chairman, E. C. Stivers, M.D.; vice-chairman,

R. B. Sweet, M.D.; councillor, A. L. Kelsey, M.D.; secretary-treasurer, R. Watson Graham, M.D.

Flu Situation.

With fluctuations there was a gradual progressive diminution in the number of cases and a lower proportion of deaths. Fifteen hundred to two thousand tourists coming every day are bringing new germs and new soil for their growth.

The city schools are being opened in districts free from danger.

An order for the wearing of masks for a period of ten days after release from quarantine, was considered and recommended by the advisory committee of business men at a meeting with Health Commissioner Powers, who thought the convalescents are the greatest spreaders of the disease. He also stated at the advisory committee's meeting that the quarantine measures have been the greatest factor in the fight against influenza.

Dr. J. L. Pomeroy, County Health Officer, issued for distribution 5000 pamphlets for the guidance of the public during the epidemic. It contains health rules, instructions to households, fumigation and the penalties for violations of the law. Constables empowered to make arrests are given, and a list of depositories for quarantine supplies.

For their work as voluntary helpers to combat the influenza epidemic, a number of teachers and employees of the school department were recommended for public commendation by the Board of Education. These include Dr. H. F. True, Dr. A. J. Herrmann, Dr. William R. Jacobs, Miss Lucy Blood, Miss Otilla Brandt, Miss Jesse Campbell, Miss Elizabeth Chandler, Miss Mary Coble, Miss Maria (Maud) Coble, Miss R. D. Quaintance, Miss Helen Woodward, J. J. Jones, Mrs. Harriet Cochran, Miss Jean Dady, Miss Alma Fisher, Miss Janet Grant, Miss Elma Hill, Miss Hannah Hansen, Miss Cordelia Macy, Mrs. Josephine Kellogg, Miss Elizabeth McGaffey, Robert Daniels, Mrs. Esther West, and Miss Irene Van Dyke, who gave her life in the service.

Dr. J. L. Pomeroy of the county health department has sent out an urgent call for graduate nurses to work in the public schools of the county. The salary is \$120 a month. The nurses are desired to inspect school children and to visit homes of children where there is influenza. The health department is short of nurses to care for the work of preparing the children for the reopening of schools.

Mayor Woodman of Los Angeles requests Surgeon General Rupert Blue that the Federal Government take charge of the campaign against the influenza epidemic in the United States.

School in the Open.

With the sanction of the board of health, the Monrovia grammar schools began a novel method of conducting school sessions, imposed by the renewal of the flu ban. From 8 a. m. to 4 p. m. the children, in groups of not more than three, are heard by their respective teachers, who dismiss them immediately, and the next group is called, by a definite schedule arranged by A. R. Clifton, superintendent of schools.

Influenza Situation Better at Pomona.

The epidemic has worked particular havoc with the local telephone company. At Claremont five of the operators were ill at one time while at Chino four of the operators were out at one time. In San Dimas an entire new force is operating the boards.

Pasadena Mask Law Violators Arrested.

Pasadena is a masked town, considerably to its own disgust, apparently. The ordinance passed by the City Commission last Saturday, making it

A violation of law to appear on the streets or in any place where the public is admitted without a mask, has been enforced. About sixty persons were arrested for failing to obey the regulation and were released on putting up \$5.00 bail.

Los Angeles Has Fewest Deaths From "Flu."

Latest government figures on the epidemic received by Dr. Powers from Washington show that Los Angeles still maintains its lead throughout the country in the number of deaths per 100,000 population. According to the government figures to January 18, Los Angeles deaths from both influenza and pneumonia have been 2822, while San Francisco deaths up to January 18 were 3477. Other cities reported deaths from the epidemic as follows: Boston 5618, Buffalo 2674, Cleveland 3849, New York 26,243, and Washington 2838.

No Cross-Infection in L. A. County Hospital.

Based on surveys made all over the country by pathological experts of the various departments at Washington, the Los Angeles County Hospital stands unique with reference to protective measures to prevent the spread of influenza from ward to ward. Cross-infection is unknown in this hospital.

N. H. Martin, superintendent of the hospital, who received this report, stated yesterday that influenza patients are being received into the hospital at the rate of twelve a day. Patients are being discharged at the rate of twenty a day. The total number of influenza patients received was 2667. At midnight last night there were 192 influenza patients in the hospital.

The fine condition of the hospital is due, Dr. Martin thinks, to the quarantine enforced. Much of the good work is due to the 180 faithful nurses. The nursing staff was sadly hit by the flu.

Medical Corps Major Tells His Observations.

"An impressive number of Western soldiers, particularly men from California and Utah, conquered tuberculosis prior to doing their part to make the world too hot for the Huns.

"Army records furnish indisputable proof that men from the city enjoy a higher average of good health than the dwellers in rural districts.

"The men suffering from the effects of the enemy's poison gas are chiefly benefited by the climatic conditions of California, and many of them expect to make their homes in the Southwest after they are discharged from army hospitals."

So says Major Ralph L. Byrnes, United States Army Medical Corps, who has returned to his home in Los Angeles after twenty months' service as one of Uncle Sam's "lung experts." He was for many months president of the tuberculosis board of the Fortieth Division at Camp Kearny. Later he did the same sort of work at Camp Dodge, Iowa, and during the final months of the war was stationed at the William Wirt Winchester Medical School and Tuberculosis Hospital, which the Government maintained at New Haven, Conn.

"There were more men from Texas and California discharged from the army by the tuberculosis board than from any other States in the Union—that is, in proportion to number of troops furnished," said Major Byrnes yesterday. "But," he added, "we found this a great tribute to the climate of the two States.

Hoag To Head Child Welfare Department.

The Board of Education has created a child welfare department for the public schools and appointed Dr. Ernest B. Hoag to take charge of it. The city has had medical inspection in the schools for years, but under the new arrangement activities in this field will be greatly extended.

Besides seeing that the children are physically fit, Dr. Hoag will deal with psychological prob-

lems having to do with the boys and girls. The mind as well as the body will come in for attention. Truancy will come under his observation. It has been found that habitual truancy and juvenile delinquency are often closely related, the latter frequently growing out of the former.

Personals.

Capt. W. A. Dutton has received his discharge from the army at Camp Lewis and returned to this city to resume his practice.

One hundred guests graced the reception at which Dr. and Mrs. Norman Bridge were hosts. Assisting Dr. and Mrs. Bridge were Mr. and Mrs. J. S. Torrance and Mr. and Mrs. Hector Alliot. The affair was given for members of the Southwest Museum. Dr. Bridge is a former president. Mr. Torrance holding that position now. Mr. Alliot holds the next post of importance in the museum. During the evening the Tandler Quartette furnished a charming musical program.

Dr. Chas. G. Stivers has returned from a year's service as surgeon in the U. S. Army.

Dr. Earl Sweet has returned from service in the U. S. Army and has reopened his office.

Dr. Ralph Hagan, chief surgeon of Base Hospital Unit No. 6, American Expeditionary Forces, is ill in the hospital at Baun, France.

Dr. Rae Smith, who for a year was in command of Navy Base Hospital Unit No. 31, in Scotland, arrived yesterday. He is a member of the advisory staff of the California Hospital. Dr. Smith was in active service in France during the entire campaign of Argonne Forest.

Dr. William H. Brownfield, who has been serving in the Army Medical Corps, at Camp Cody, N. M., returned to Los Angeles yesterday and resumed practice.

Dr. Bertram C. Davies returned yesterday from Fort Oglethorpe, Ga., to resume practice here. Dr. Davies, who was a captain in the Medical Corps, was for some time a post-graduate instructor in the school for physicians at the Georgia camp.

Capt. A. Halden Jones recently returned to his home and medical practice in this city from Camp Oglethorpe, Ga.

Dr. A. T. Charlton, who trained the nurses and internes of Naval Base Hospital Unit No. 3 at the County Hospital here, has returned home and will shortly resume practice. His return was hastened by the illness of his wife. For a time Dr. Charlton was connected with naval hospital work in Scotland, with the rank of senior lieutenant. Later he was transferred to the Army Medical Service in the battle of Argonne Forest.

A public demonstration is being planned in honor of Major Charles D. Lockwood, organizer of the Pasadena Ambulance Corps, which saw active service in Italy. Believing that this country would eventually be drawn into the war, Major Lockwood organized the corps in October, 1916. In June, 1917, the boys left for Allentown, Pa. They got to the front last year. Major Lockwood was detached for service at a base hospital in France, which explains why he gets home ahead of the company, which is still in Italy.

Dr. Maurice Armstrong, recently captain in the Medical Corps of the Army, has received his discharge from service and has resumed his practice in this city.

Dr. Egerton Crispin, who has been serving overseas with Naval Base Hospital Unit No. 3, returned to Los Angeles.

Dr. Clarence Moore returned to Los Angeles in the pink of condition, to be warmly greeted by a great circle of friends, as well as by his family and his father and mother, Dr. and Mrs. M. L. Moore. He was consulting surgeon of five of the

great military hospitals in France when the war closed, with the rank of major.

Dr. Lulu Peters, one of the best known doctors and club women in the city, will leave shortly for New York to sail in a fortnight with a unit of the American Women's Hospitals for duty in Serbia. She expects to be away from nine to twelve months.

The work is to be under the direction of the Red Cross. Dr. Peters is the only California woman with this particular contingent, although Dr. Margaret Farwell, another Los Angeles physician, has for some time been with the Balkan commission. The unit comprises ten doctors and two dentists. It will report to the Balkan commission at Rome.

Dr. Peters' work will be largely among the women and children in the suffering areas of Serbia. Her hospital is to be migratory, and the doctors will go to the patients, rather than have the patients come to them. The work will be general, medical and surgical relief, it is stated.

Dr. Peters, who has been in the city for about twenty-five years, was last year chairman of the department of public health of the California Federation of Women's Clubs for the Los Angeles district. She is a member of the Friday Morning, Woman's City, University and the Professional Women's Clubs, and has written a book on the suppression of excess avoirdupois in her sex.

Upon completion of her work with the unit, Dr. Peters plans to travel and do research work in the devastated areas of Europe, gathering material for a second publication.

MENDOCINO COUNTY.

At a belated yearly meeting held at Ukiah on the 31st of January the following officers were elected:

President, Carol Lincoln Sweet, M. D., Elk; vice-president, S. L. Rea, M. D., Ukiah; secretary-treasurer, Oswald H. Beckman, M. D., Fort Bragg; asst. editor, Oswald H. Beckman, M. D., Fort Bragg; delegate, F. G. Gunn, M. D., Willits.

It was also resolved to establish associate memberships. The society also endorsed the Health Day proposition.

A belated New Year's greeting to my friends:
Do not, dear friend, misjudge me now,
E'en if slow I may seem with thou;
A true excuse is due to you.
I have been sick, I've had the "Flu."
Therefore though late it now may seem,
This greeting has a sunny beam.
Its wish is most sincere to you,
"A Happy New Year, and no Flu,"
With full and plenty all this year
For yourself and those you hold dear.

MONTEREY COUNTY.

At the meeting of Monterey County Medical Society, recently held, the following officers were elected: President, Dr. Garth Parker, Salinas; vice-president, Dr. J. A. Beck, Salinas; secretary, Dr. T. C. Edwards, Salinas; treasurer, Dr. John Parker.

ORANGE COUNTY.

The Orange County Medical Society held its regular monthly meeting at the Santa Ana Library on the evening of February 4th. The paper of the evening was given by Dr. D. C. Cowles, of Fullerton, and was entitled Tuberculous Peritonitis. The paper proved to be very interesting and brought out a very extensive discussion. In the paper the doctor gave a report of ten cases which had been treated surgically.

The March meeting of the Society will be held at the Orange County Hospital, where Dr. H. A. Zaiser will favor the members by showing them several interesting clinical cases.

Dr. C. D. Ball, of Santa Ana, who had a severe accident on Thanksgiving Day, is able to be out in a wheel chair.

Major Winters is on his way home to Santa Ana, being in New York at last report.

Captain Chapline has returned to Orange and it is understood will reopen his office there.

Captain Wehrley writes to Dr. Dryer, from France, that he is in Base Hospital 108 and having quite a large experience in the work there.

Captain Wickert cables that he expects to leave France soon for home.

PLACER COUNTY.

At the meeting held in Roseville on Saturday, Feb. 8th, the Placer County Medical Society was re-organized and the following officers elected:

President, Dr. Bradford Woodbridge, Roseville; vice-president, Dr. G. H. Fay, Auburn; secretary-treasurer Dr. R. A. Peers, Colfax. The delegate and alternate are the same as last year, Dr. Ostrum of Loomis, and Dr. Miner of Colfax, respectively.

SACRAMENTO COUNTY.

At the annual meeting of the Sacramento Society for Medical Improvement, the following officers were elected for the ensuing year:

President, Dr. G. A. Spencer.

Vice-President, Dr. G. A. Foster.

Secretary-Treasurer, Dr. W. A. Beattie.

Directors, Dr. G. P. Dillon, Dr. J. W. James, Dr. G. A. Foster, Dr. G. A. Spencer and Dr. W. A. Beattie.

SAN DIEGO COUNTY.

Members of the San Diego County Medical Society enjoyed two excellent scientific programs in January. On the evening of the 14th, after partaking of a well-served dinner at the Maryland Hotel, the members were treated to an excellent paper by Capt. J. R. Arneill, M. C., U. S. A., of Camp Kearny on "Cardio-vascular Problems in the Army."

Dr. Arneill's record as an internist in his native city of Denver before entering the service was such as to guarantee a paper of original worth. The paper was discussed by Drs. Churchill, Andrews and Little.

On the evening of the 28th Capt. J. F. Grant, M. C., U. S. A., Rockwell Aviation Field, delivered in the rooms of the Society an illustrated talk on "Examination and Classification of Aviators." This represents the original research work of the aviation branch of the army as carried on at different points to determine the fitness and flexibility of the heart, circulation and nervous system of the applicants for pilot service. The paper was ably presented and elicited a lively interest from the large attendance, many of whom wore the uniform of camps in the vicinity. Capt. Grant, who is a member of the San Diego County Medical Society, has been requested by the medical authorities at Camp Kearny to repeat this lecture at the Base Hospital early in February.

Dr. James A. Jackson has returned from service in the army and resumed the practice of his specialty, dermatology.

Capt. Rawson J. Pickard, M. C., U. S. A., who has been following intensive study of epidemiology at Yale University, has returned to his laboratory work in San Diego.

Major J. A. Parks has returned from the service on the various tuberculosis boards throughout the West Coast and resumed the practice of his specialty.

Dr. Andrew J. Thornton, who has received an honorable discharge from the navy, has resumed active practice in San Diego.

Dr. C. E. Ide has taken over the office of the

late Dr. Wm. Williamson, with practice limited to eye, ear, nose and throat.

Dr. E. H. Crabtree has returned from active service in the army and resumed practice in San Diego.

Dr. Harry M. Wegeforth has received his honorable discharge from the army and has resumed his practice in San Diego, after an intensive course in neuro-surgery in New York City.

SAN FRANCISCO COUNTY.

With Red Cross in Rome.

The second contingent of the American Red Cross Tuberculosis Department, of which Dr. Esther Rosencrantz is a member, has arrived in Rome.

Dr. Rosencrantz and other members of the party numbering eighteen social service and health experts, made the trip by way of New York and Genoa. She has been assigned to the medical staff and will begin work at once.

A survey of health conditions throughout Italy has just been completed by this Department. A train of American-made automobile traveling dispensaries will be put in operation in the northern provinces shortly.

Society Meetings.

Proceedings of the San Francisco County Medical Society.

During the month of January, 1919, the following meetings were held:

Tuesday, January 7th—Section on Medicine.

1. The teeth as a basis for referred pain. O. G. Freyermuth.
2. Tuberculin, its uses and limitations. Leon DeVille.

Tuesday, January 14th—Annual Meeting.

1. Oration on members deceased during the past year. J. T. Watkins.
2. Presentation of portrait photogram of Dr. Geo. Chismore with few remarks regarding Dr. Chismore's characteristics and his place in surgery. H. M. Sherman.
3. Address of President, J. H. Graves.
4. Annual reports of secretary, librarian, committee on admissions and executive committee.
5. Election of officers, board of directors, delegates and alternates.
6. Case of multiple fracture of the pelvis with injuries to urethra, prostate, bladder, ureter, and kidney, showing results of conservative surgery. Illustrated by lantern slides. Martin Molony.
7. Perforating gastric and duodenal ulcers. Saxton Pope.
8. The X-ray as an aid in the study of gastrointestinal disorders. L. L. Jones.

Tuesday, January 21st—Section on Surgery.

San Francisco Polyclinic Clinical Evening.

1. Syphilis in women. Wm. E. Stevens.
2. Non-operative treatment of cataracts. A. S. Green.
3. Differential diagnosis of medical and surgical conditions pertaining to the ear. (Illustrated). C. F. Welty.

Tuesday, January 28th—Section on Eye, Ear, Nose and Throat.

Recent Progress in the Study of Tuberculosis of the Eye, Ear, Nose and Throat.

1. Eye—Kaspar Pischel, W. S. Franklin.
2. Ear—H. Y. McNaught.
3. Nose and Throat—Wallace Smith.
4. General—P. H. Pierson.
5. What the State is doing (Illustrated). Mrs. E. Tate Thompson, Director Bureau Tuberculosis, State Board of Health.

SAN JOAQUIN COUNTY.

The annual meeting of the San Joaquin County Medical Society was held in the office of Dr. R. T. McGurk Friday evening, December 27. Those present were Drs. E. A. Arthur, Grace McCoskey, Margaret Smyth, Minerva Goodaman and R. T. McGurk.

A motion was made and carried approving the City Council's action in suspending public dancing during the present stage of the influenza epidemic.

The president called for the counting of the ballots and the following members were declared elected: Directors for the ensuing year: Drs. R. T. McGurk, E. A. Arthur, F. P. Clark, J. D. Dameron, D. R. Powell, C. R. Harry, H. Smyth, B. F. Walker, J. V. Craviotto. From the above nine Dr. E. A. Arthur was chosen as president, Dr. J. D. Dameron first vice-president, Dr. Hudson Smyth second vice-president, and Dr. R. T. McGurk secretary.

The following committees were elected:

Program—Drs. B. J. Powell, chairman; R. T. McGurk and Margaret Smyth.

Ethics—Drs. F. P. Clark, chairman; C. F. English, E. A. Arthur, S. R. Arthur and C. R. Harry.

Finance—Drs. Grace McCoskey, chairman; R. T. McGurk and J. V. Craviotto.

Admissions—Drs. J. D. Dameron, chairman; C. F. English, D. R. Powell, L. Dozier and E. A. Arthur.

For delegate to the State Society, Dr. R. T. McGurk was elected, with Dr. F. P. Clark as alternate.

R. T. McGURK, Secretary.

The regular monthly meeting of the San Joaquin County Medical Society was held in the office of Dr. C. D. Holliger, Friday evening, January 31st. Those present were: Drs. C. F. English, S. P. Tuggle, H. Q. Willis, B. F. Walker, H. E. Sanderson, C. D. Holliger, E. A. Arthur, R. T. McGurk, B. J. Powell, W. F. Priestly and Mr. P. Ansell of Oakland.

The evening was devoted to radiographic demonstrations by Dr. Holliger and Mr. Ansell. Some very interesting plates were shown. Mr. Ansell also gave an interesting talk on the value of X-ray treatment, emphasizing the necessity of having the proper technique in all cases treated by the X-ray. Several of the plates showed unusual conditions and brought forth considerable discussion by the members present.

SANTA CRUZ COUNTY.

At the meeting of the Santa Cruz County Medical Society held in January, the following officers were elected for the year 1919:

President, Dr. W. H. Keck, Santa Cruz; first vice-president, Dr. L. M. Liles, Watsonville; second vice-president, Dr. W. F. Cothran, Santa Cruz; secretary, Dr. A. N. Nittler, Santa Cruz; associate editor, Dr. A. F. Cowden.

SHASTA COUNTY.

The Shasta County Medical Society had its regular January meeting on Saturday, January 18th, 1919. Only three members were present, Dr. F. Stabel, president; Dr. C. A. Mueller, secretary, and Dr. A. G. Gilliland of Cottonwood. Dr. S. T. White was absent on account of illness. Other physicians usually attending were absent on account of professional duties. The regular routine of business was transacted. Dr. F. Stabel was appointed delegate to the State Medical Society meeting in April.

SONOMA COUNTY.

At the meeting of the Sonoma County Medical Society in January, the following officers were elected:

President, Dr. Elizabeth M. Yates; vice-president, Dr. F. O. Butler; secretary, Dr. N. Juell; treasurer, Dr. R. M. Bonar.

VENTURA COUNTY.

At the December meeting of the Ventura County Medical Society, Dr. Edith A. Lamoree was elected president, and Dr. C. A. Jenson secretary. Dr. B. F. Merrill, of Santa Paula, has returned to active practice.

Notices**UNIVERSITY OF CALIFORNIA EXTENSION**

The Factors of Evolution in Man. Prof. Samuel J. Holmes.

The University of California wishes to call your attention to the increased importance of **eugenics** and **genetics** at the present time.

The great war has turned the mind of the world to the problem of decadence or progress in modern civilization. This problem will be treated in a course of 15 University Extension lectures to be delivered by Professor Samuel J. Holmes.

Professor Holmes, the acting head of the Department of Zoology of the University of California, is a national authority on heredity, evolution and eugenics. He will point out the factors and forces essential to the development of a vigorous nation.

The course will be conducted particularly for legislators, executives, doctors, teachers, and social workers; but it will be vitally interesting to students at large.

The lectures will be delivered on Thursday evening each week in the San Francisco Main Public Library in the Civic Center. The fee for the course will be \$5.00.

In the interest of national progress, will you mention the course to others who may be interested?

Outline of Course on Eugenics.

1. Problem of Human Evolution. Preliminary Survey of the Field.
2. The Laws of Heredity.
3. The Transmission of Human Defects. Mode of Inheritance of Insanity. Feeble-mindedness, and other forms of mental defection.
4. The Inheritance of Mental Ability.
5. The Hereditary Factor in Crime and Delinquency.
6. The Decline of the Birth Rate. The Relative Birth Rates of Different Classes of the Population.
7. Causes of the Decline in Birth Rate.
8. Hereditary Influence of Alcohol and Disease.
9. Natural Selection of Man. The Various Forms of Natural Selection Among Human Beings. Racial Influence on Infant Mortality.
10. War and the Race. An Estimate of the Different Ways in Which War May Modify Human Inheritance.
11. Sexual Selection in Men. Its Past and Present Influence and Its Possibilities.
12. Industrial Development and Racial Inheritance.
13. The Elimination of Defectives. Sterilization and Segregation.
14. Religion as a Factor in Race Development. Religious Selection Past and Present.
15. The Present Trend of the Race. General Summary and Discussion of Various Forces Working Towards Racial Deterioration or Improvement.

CONSTITUTION OF THE MEDICAL SOCIETY OF THE STATE OF CALIFORNIA

To be amended at the 48th Annual Meeting of the Medical Society of the State of California, held at Santa Barbara, April 1919.

ARTICLE I.**Name and Object.**

Section 1. The name of this Society shall be the "Medical Society of the State of California."

Sec. 2. The purpose of this Society shall be to federate and bring into one compact organization the entire medical profession of the State of California, and to unite with similar societies of other States to form the American Medical Association; to extend medical knowledge and advance medical science; to elevate the standard of medical education, and to secure the enactment and enforcement of just medical laws; to promote friendly intercourse among physicians, to guard and foster the material interests of its members and to protect them against imposition; and to enlighten and direct public opinion in regard to the great problems of state medicine, so that the profession shall become more capable and honorable within itself, and more useful to the public, in the prevention and cure of disease, and in prolonging and adding comfort to life.

ARTICLE II.**Component Societies.**

Component Societies shall consist of those county medical societies which hold charters from this Society.

ARTICLE III.**Composition of the Society.**

Section 1. This Society shall consist of Members, Delegates, and Guests.

Sec. 2. Members—The Members of the Society shall be the members of the component county medical societies.

Sec. 3. Delegates—Delegates shall be those members who are elected in accordance with this Constitution and By-Laws to represent their respective component societies in the House of Delegates of this Society.

Sec. 4.—Guests—Any distinguished scientist, or any physician not a resident of this State, may become a guest during any Annual Session on invitation of the President or the officers of this Society, and shall be accorded the privilege of participating in all of the scientific work for that session. The President shall announce to the general meeting the names of such persons as have been invited to attend the meeting, and their names shall then be enrolled as guests of that annual meeting.

ARTICLE IV.**House of Delegates.**

The House of Delegates shall be the legislative and business body of the Society, and shall consist of (1) Delegates elected by the component county

societies, (2) the Councilors, and (3), ex-officio, the President and Secretary of this Society.

ARTICLE V.

Meetings.

Section 1. The regular meetings of this Society shall be held annually.

Sec. 2. Special meetings of the House of Delegates may be convened as the By-Laws provide.

Sec. 3. Twenty-five members shall constitute a quorum in the House of Delegates.

Sec. 4. The selection of the place of meeting, and the election of officers, shall be the first order of business of the House of Delegates at the second evening session of each annual meeting.

Sec. 5. All officers shall be elected by ballot, and shall serve until their successors are chosen and qualified.

ARTICLE VI.

Officers.

Section 1. The officers of this Society shall be a President, a First Vice-President, a Second Vice-President, a Secretary, two Assistant Secretaries, a Treasurer, Examiners or nominees for appointment as Examiners on the Board of Medical Examiners as may be required by the laws of the State of California governing the practice of medicine, and twelve Councilors, of whom one shall be elected from each of the nine Councilor districts and three at large. Not more than three Councilors shall be elected from any one Councilor district. These officers shall be elected by the House of Delegates at the time and in the manner duly provided in this Constitution and By-Laws.

Sec. 2. The officers, except the Treasurer and the Councilors, shall be elected annually. The terms of the elected Councilors shall be for three years, those first elected serving one, two and three years, as may be arranged.

Section 3. No delegates shall be eligible to any office named in the preceding section, except that of Councilor, and no person shall be elected to any such office who has not been a member of the Society for the past two years.

ARTICLE VII.

Council.

The Council shall consist of the Councilors and the President and Secretary, ex-officio. Besides its duties mentioned in the By-Laws, it shall constitute the Finance Committee of the House of Delegates. Five Councilors shall constitute a quorum.

ARTICLE VIII.

Section and District Societies.

The House of Delegates may provide for a division of the scientific work of the Society into appropriate Sections, and for the organization of such District Societies as will promote the best interests of the profession, such societies to be composed exclusively of members of component county societies.

ARTICLE IX.

Reciprocity of Membership With Other State Societies.

In order to broaden professional fellowship, this Society is ready to arrange with other State Medical Associations for an interchange of certificates of membership, so that members moving from one State to another may avoid the formality of re-election.

ARTICLE X.

Funds and Expenses.

Funds shall be raised by an equal per capita assessment on each component society. The amount of the assessment shall be fixed by the House of Delegates, but shall not exceed the sum of \$2.00 per capita per annum, except on a four-fifths vote of the Delegates. The fiscal year of the Society shall be from January 1st to December 31st. The number of members in good standing in each component society on the first day of January of each year shall be taken as the basis for the assessment for that fiscal year, as fixed by the House of Delegates. Funds may also be raised by voluntary contributions from the Society's publications, and in any other manner approved by the House of Delegates. Funds may be appropriated by the House of Delegates to defray the expenses of the Society, for publications and for such other purposes as will promote the welfare of the profession. All resolutions appropriating funds must be referred to the Finance Committee before action is taken thereon.

ARTICLE XI.

Referendum.

Section 1. A general meeting of the Society may, by a two-thirds vote of the members present, order a general referendum on any question pending before the House of Delegates, and when so ordered, the House of Delegates shall submit such question to the members of the Society, who may vote by mail or in person, and, if the members voting shall comprise a majority of all the members of the Society, a majority of such vote shall determine the question and be binding on the House of Delegates.

Sec. 2. The House of Delegates may, by a two-thirds vote of its own members, submit any question before it to a general referendum, as provided in the preceding section, and the result shall be binding on the House of Delegates.

ARTICLE XII.

The Seal.

The Society shall have a common seal, with power to break, change or renew the same at pleasure.

ARTICLE XIII.

Amendments.

The House of Delegates may amend any article of this Constitution by a two-thirds vote of the Delegates present at any annual session, provided that such amendment shall have been presented in open meeting at the previous annual session, and

that it shall have been published twice during the year in the Journal of this Society, or sent officially to each component society for at least two months before the meeting at which final action is to be taken.

CONSTITUTION OF THE MEDICAL SOCIETY OF THE STATE OF CALIFORNIA

(Incorporating Amendments proposed at Annual Meeting held at Del Monte, April 1918,—to be voted upon at the 48th Annual Meeting to be held at Santa Barbara, April 1919).

Constitution.

ARTICLE I.

NAME AND OBJECT.

Section 1. The name of this Society shall be the "Medical Society of the State of California."

Sec. 2. The purpose of this Society shall be to federate and bring into one compact organization the entire medical profession of the State of California, and to unite with similar societies of other States to form the American Medical Association; to extend medical knowledge and advance medical science; to elevate the standard of medical education, and to secure the enactment and enforcement of just medical laws; to promote friendly intercourse among physicians; to guard and foster the material interests of its members and to protect them against imposition; and to enlighten and direct public opinion in regard to the great problems of state medicine, so that the profession shall become more capable and honorable within itself, and more useful to the public, in the prevention and cure of disease, and in prolonging and adding comfort to life.

ARTICLE II.

COMPONENT SOCIETIES.

Component Societies shall consist of those county medical societies which hold charters from this Society.

ARTICLE III.

MEMBERS.

Section 1. Members—The Members of the Society shall be the members of the component county medical societies, excluding associate or honorary members thereof.

Sec. 2. Guests—Any distinguished scientist, associate or honorary member of any component county society, or any physician not a resident of this State, may become a guest during any Annual Meeting on invitation of the President or the officers of this Society, and shall be accorded the privilege of participating in all of the scientific work for that meeting. The President shall announce to the general meeting the names of such persons as have been invited to attend the meeting, and their names shall then be enrolled as guests of that annual meeting.

ARTICLE IV.

HOUSE OF DELEGATES.

The House of Delegates shall be the legislative body of the Society, and shall consist of (1) Delegates elected by the component county societies, (2) the Councilors, and (3) ex-officio, the President and Secretary of this Society.

ARTICLE V.

MEETINGS.

Section 1. The regular meetings of this Society shall be held annually.

Sec. 2. Special meetings of the House of Delegates may be convened as the By-Laws provide.

Sec. 3. Twenty-five members shall constitute a quorum in the House of Delegates.

Sec. 4. The election of officers shall be the first order of business of the House of Delegates at the second evening session of each annual meeting.

Sec. 5. All officers shall be elected by ballot, and shall serve until their successors are elected and qualified.

ARTICLE VI.

OFFICERS.

Section 1. The officers of this Society shall be a President, a President-elect, a First Vice-President, a Second Vice-President, a Secretary, and fifteen Councilors, of whom one shall be elected from each of the nine Councilor districts and six at large, two of whom shall be elected from the County of Los Angeles, one from the City and County of San Francisco, one from the County of Alameda, and two from the remainder of the State. Not more than three Councilors shall be elected from any one Councilor district. These officers shall be elected by the House of Delegates at the time and in the manner duly provided in this Constitution and By-Laws.

Sec. 2. The officers, except the Councilors, shall be elected annually. The terms of the elected Councilors shall be for three years, those first elected serving one, two and three years, as may be arranged.

Sec. 3. The Society shall elect a President for the next succeeding year who shall remain President-elect for one year preceding his assumption of the office of President. While President-elect he shall be ex-officio a member of the Council.

Sec. 4. No delegates shall be eligible to any office named in the preceding section, except that of Councilor, and no person shall be elected to any such office who has not been a member of the Society for the past two years.

ARTICLE VII.

COUNCIL.

The Council shall consist of the Councilors and the President, the President-elect and the Secretary, ex-officio. Besides its duties mentioned in the By-Laws, it shall constitute the Finance Committee of the House of Delegates. Five Councilors shall constitute a quorum.

ARTICLE VIII.

SECTION AND DISTRICT SOCIETIES.

The House of Delegates may provide for a division of the scientific work of the Society into appropriate Sections, and for the organization of

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Proposed amendment.

such District Societies as will promote the best interests of the profession, such societies to be composed exclusively of members of component county societies.

ARTICLE IX.

FUNDS AND EXPENSES.

Funds shall be raised by an equal per capita assessment on each component society. The amount of the assessment shall be fixed by the House of Delegates by a four-fifths vote thereof. The fiscal year of the Society shall be from January 1st to December 31st. The number of members in good standing in each component society on the first day of March of each year shall be taken as the basis for the assessment for that fiscal year, as fixed by the House of Delegates. Funds may also be raised by voluntary contributions from the Society's publications, and in any other manner approved by the House of Delegates. Funds may be appropriated by the House of Delegates to defray the expenses of the Society, for publications and for such other purposes as will promote the welfare of the profession.

ARTICLE X.

REFERENDUM.

Section 1. A general meeting of the Society may, by a two-thirds vote of the members present, order a general referendum on any question pending before the House of Delegates, and when so ordered, the House of Delegates shall submit such question to the members of the Society, who may vote by mail or in person, and, if the members voting shall comprise a majority of all the members of the Society, a majority of such vote shall determine the question and be binding on the House of Delegates.

Sec. 2. The House of Delegates may, by a two-thirds vote of its own members, submit any question before it to a general referendum, as provided in the preceding section, and the result shall be binding on the House of Delegates.

ARTICLE XI.

THE SEAL.

The Society shall have a common seal, with such inscription thereon as the Council shall prescribe.

ARTICLE XII.

AMENDMENTS.

The House of Delegates may amend any article of this Constitution by a two-thirds vote of the Delegates present at any annual meeting, provided that such amendment shall have been presented in open meeting at the previous annual meeting, and that it shall have been published twice during the year in the Journal of this Society, or sent officially to each component society for at least two months before the meeting at which final action is to be taken.

Milk for Children

The need of public action to place clean milk within the reach of every family having little children is emphasized in the report of the New Orleans milk situation, just issued by the Children's Bureau, U. S. Department of Labor. This is the third study made under the Bureau's auspices of the use of milk in families where there are small children. The studies all indicate that children are not getting as much milk to drink as they need for healthful development; but in New Orleans, where the most recent study was made, children are found to be getting less milk to drink than the children of Baltimore, Maryland, and Washington, D. C., the other two cities studied. Seventy per cent. of the children under eight who were not breastfed were getting no fresh milk at all to drink. In Baltimore 66 per cent. and in Washington 45 per cent. of the children under eight and not breastfed were getting no milk to drink, although the Children's Bureau points out that a child under eight should drink at least three cups (a pint and a half) of milk a day.

In New Orleans only 20 of the 413 children from 2 to 7 years old included in the study were drinking as much as three cups of fresh milk a day.

While the New Orleans figures show that the children from 2 to 7 years old suffer most from lack of milk to drink, it is also to be noted that only 63 per cent. of the babies under two who are not nursed by their mothers are given milk.

The situation, says the report, gives cause for grave concern because the children are not only being deprived of "the best and most nourishing food for normal development," but they are being given injurious substitutes in its stead. Of 338 children 7 years old or younger who are not breastfed and are getting no fresh milk to drink, 245 are given tea or coffee in place of it. "Milk is not merely a pleasant drink," said a Children's Bureau expert recently, "it is a food, and really a solid food. Americans are a milk fed race whose health will seriously deteriorate if the use of dairy products is given up."

The 211 families studied form only a small proportion of those in New Orleans having little children, but they are considered representative. Most of the parents were of native birth; in 17 families they were foreign born, and 5 were negro. Although definite figures regarding income were not secured, the families are of about the same economic status as those included in the recent Washington study, where more than three-fourths of the families were living on \$20 a week or less.

Reports issued by the Bureau of Labor Statistics show that the price of milk in the United States generally has increased 63 per cent. in the last five years. According to the Bureau of Markets of the Department of Agriculture, milk now retails for 16c in New Orleans. In several places, notably Shreveport, La., Nashville, Tenn., and Tampa, Fla., it is as high as 20c a quart. The point is made by the Children's Bureau that no matter what the price of milk it is still a cheap food, because it contains all the elements essential to growth.

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Department of Pharmacy and Chemistry

Edited by FELIX LENGFELD, Ph. D.

Help the propaganda for reform by prescribing official preparations. The committees of the U. S. P. and N. F. are chosen from the very best therapeutists, pharmacologists, pharmacognosists and pharmacists. The formulae are carefully worked out and the products tested in scientifically equipped laboratories under the very best conditions. Is it not plausible to assume that these preparations are, at least, as good as those evolved with far inferior facilities by the mercenary nostrum maker who claims all the law will allow?

The Internal Revenue Department calls attention to certain phases of the Harrison Narcotic Act which particularly affect the physician. This act specifically penalizes the improper dispensing or distributing of narcotics and the department apparently holds that the term "dispensing" includes prescribing. The physician, therefore, is liable to prosecution if he writes a prescription that does not contain full information required by the department even if this prescription is not filled. A narcotic prescription must contain the date, name and address of the patient, address, registry number and full signature of prescriber. If a large quantity of narcotic be prescribed the prescriber must state whether it is for an addict or an incurable. If for an addict, the dose must be gradually reduced. If for an incurable, the dose may be kept constant or even increased. It is expected that the physician will order only sufficient for a reasonable time and he becomes responsible for the proper use of this.

The Council has frequently warned against the use of the so-called Aromatic or Compound Digestive tablets which contain a number of digestive ferments, holding that these ferments in many cases neutralize one another so that the tablets are practically inert. It is interesting to note that one concern which makes aromatic digestive tablets when taken to task for leaving out one of the ferments put up the plea that as this ferment would only destroy the others, it were better to leave it out, although its appearance on the label increased the sale of the tablets.

The genuine Elixir Theriacum contained 167 ingredients. It was a cure for everything and nobody ever knew which ingredient cured.

A number of years ago there lived in San Francisco an herb doctor who was very successful in obscure diseases. In his private sanctum he had boxes of herbs numbered from 1 to 36. After interviewing his patient and determining from the gravity of the case and the complexity of the symptoms just how many herbs would be required, he adjourned to the sanctum and there spun a roulette wheel. If 19 won he took some of herb 19. If 31, he took some of 31. He spun the wheel as often as necessary in order to get the number of herbs he required. He would then mix them and give them to the patient, and the result was a very large and lucrative practice.

The Elixir Theriacum and the herb doctor were fully as scientific and rational as some of the animal extract therapy now being preached to the medical profession. There is no doubt that some animal glands and some animal extracts are important and essential medicines. They do good when properly used and they do harm when contra-indicated. There are others whose efficacy is doubtful. It is not known that they really do good but, on the other hand, it is not definitely known that they do no harm. All of these products must be used rationally and with care. There is no objection to using two or more at the same time but the physician should study each case carefully and

determine the nature and the dose of the products required. He should not be satisfied with a union suit which fits everybody.

After the article on Aspirin in the January number had been written, the Patent Office cancelled the trade-mark "Aspirin" on the ground that the name Aspirin has become synonymous with Acetyl Salicylic Acid. There, therefore, can be no objection to the physician prescribing Aspirin as such, although he may equally well prescribe Acid Acetyl Salicylic. There is likewise no reason why any other name should be introduced and it is to be hoped that pharmaceutical houses will not try to add to the large number of empirical names already so needlessly before the public.

In the year 1917 about 7½ million ounces of aspirin were manufactured in this country. Since about three-fourths of this was converted into 5-Gr. tablets, about 500 million of these tablets are used annually in the United States.

Prompt action of the A. M. A. Council on Chemistry and Pharmacy has probably saved the medical profession from B-iodine. A pamphlet had been issued setting forth the virtues of this preparation and a request made that this be included in the N. N. R. It was claimed that B-iodine is a nitrogen hydrate of iodine. Added to water it reacts with the water and liberates free colloidal iodine. This iodine remains in solution as a colloid. It was claimed that colloidal iodine would be more easily assimilated by the tissue than ordinary iodine. Examination of B-iodine showed it to be a mixture of iodine and ammonium iodide which, of course, dissolved in water without any further reaction. When attention was called to this, the manufacturers admitted that the solution was simply a solution of a double salt or molecular compound of ammonium iodide and iodine but stated that this would do the work they claimed for their colloidal iodine solution. However, as there was nothing new about this and as the claims seemed unjustified, the Council refused to admit B-iodine. The same manufacturers also had an oleum B-iodine which was claimed to be a 5 per cent. solution of B-iodine in paraffine oil. As a matter of fact it contained less than 1 per cent. of B-iodine in paraffine oil and a second specimen was little better. It is probable that B-iodine will not be offered to the medical profession. Even if the original statements were correct, there is no real evidence that a colloidal solution of iodine will act any better than a true solution of iodine. Colloidal silver does act better than ordinary silver because we cannot get ordinary silver in such fine suspension, but it is not improbable that a true solution of silver, if it could be made, would be even better than colloidal silver.

The United States Public Health Service has instituted a campaign against the use of proprietary remedies for venereal diseases. It has secured the co-operation of many of the pharmacists of the country who have removed these preparations from their shelves and refuse to sell them. This campaign is one of education.

As a rule the druggists who are willing to co-operate with the Public Health Service are those who have sold these preparations under protest, have made none of their own do no counter prescribing. There are a certain number of druggists who make and push their own preparations for this class of disease and who, unfortunately, are often in the neighborhood where they can do the most harm. Many of these refuse to co-operate with the Public Health Service and can only be reached by law and not by a campaign of education.

A bill making it a criminal offense for a druggist to sell this class of preparation without a physician's prescription is now before the Legislature

and stands a very good chance of becoming a law. Of course the usual cry will be raised that this law is passed in the interests of the physicians and physicians' trust and will simply enable the practitioner to get more cases and exact higher fees. It is to be hoped there will be provided for this class of disease a clinic where the patient can secure absolute privacy so that he will not fear to ask public aid.

Red Cross Relief in Palestine

How American Red Cross physicians engaged in relief work near Jerusalem are accomplishing worth while results in the face of great difficulties—and what they are up against, is shown in a report from W. S. Dodd, A. R. C., doctor working at Mejdal in this section.

With two capable English trained nurses, and three native helpers, more or less useful, Dr. Dodd, his "hospital" housed under tents, performed 252 operations in seven weeks, besides giving medical examinations, treatment and counsel to hundreds of the destitute inhabitants and refugees.

His report says in part: "The work of the Hospital was of the plainest sort, it might be called primitive. About twenty-five tents comprised the Hospital proper, with a Dispensary tent, and tents for the living quarters of the staff.

"The soil was all the purest sea-sand with thistles and seant grass; going barefoot was the universal custom, and in our own quarters we of the staff used to follow that custom with great pleasure. . .

"The professional side of the work was of the greatest interest to me and every day was a pleasure. The clinics numbered sixty to a hundred a day. Of course we had all classes of cases in medicine and general surgery, but by far the larger proportion of our patients were eye-cases.

"Of the 252 operations that I did in less than seven weeks, 222 were for the eyes. This is the number of persons operated on, most of them having more than one operation, perhaps on all four lids, so that I really operated on 408 eyes.

"There were some cataracts, not more than would be seen in the same number of cases elsewhere, but Trachoma and its consequences accounts for almost all of the eye troubles in this land. I set out to treat these cases radically and secured fine results when I could keep the patients long enough for a reasonable after-treatment. But even so, the number of eyes that can be saved from partial and total blindness is large and the economic value of each eye thus saved is enough to make the prosecution of this line of work of the greatest importance for the redemption of the land.

"The accident cases are always interesting. I had the last end of treatment of some cases of bombed hands, of which there had been quite a number in the earlier days. These were largely in children, and were due to their picking up unexploded Turkish bombs that were lying in the fields from the time of the British advance in the Gaza region. Many fingers and even hands were lost from this cause.

"Vermin was the great enemy we had to fight. Fleas were hardly counted as a problem because we could do nothing against them, they were everywhere and inevitable, and so far as we know at present, not being the carriers of any special disease, did not come within the hostility of a medical conscience.

"Lice and maggots were a daily terror. How many wounds and injuries came to us filled with maggots I cannot tell. A favorite dressing for a wound is a piece of raw meat, a breedingplace for maggots, and they can hardly be blamed for invading the adjoining premises.

Many a child had to be put under chloroform in order to search out and pull from their hiding

places, deep in the middle ear, a half dozen wriggling maggots, whose every motion was causing torture to the innocent victim.

"A woman came to the clinic complaining of headache. A single sore on her face led to questioning, and when she rather unwillingly undid her turban we found an exaggerated case of impetigo, and every separate sore was as if the whole thickness of the scalp down to the bone had been punched out, and every sore was a nest of maggots. I removed sixty at the first seance, and at the first dressing next day the nurse had more to do. The headache was cured without further treatment. And these are not the most loathsome cases that we saw.

"Another great difficulty with which we had to contend was the filthy habits of the people. In spite of providing proper sanitary facilities, we were compelled to have a scavenger go around every morning and clean up the filth from around the tents of the patients. The women were as bad offenders as the men. We made it a rule that anyone known to have violated these simple sanitary regulations must go without their dinner next day, and this was quite an effective punishment."

New Members

Apostolides, Emanuel, San Francisco.
Blackshaw, J. B., Sebastopol.
Blythe, Thos. M., Redlands.
Holmes, Albert O., Redlands.
Arnold, Clement H., San Francisco.
Boyd, S. G., San Francisco.
Harbaugh, R. W., San Francisco.
Marcus, Herman, San Francisco.
Smith, Wallace Bruce, San Francisco.
Duncan, J. A., San Francisco.
Haworth, M. W., Sacramento.
Voisard, F. X., Sacramento.

Transferred

Twitchell, E. W., from Sacramento Co. to San Francisco Co.
Condit, J. C., from Sonoma Co. to Alameda Co.
Collings, H. A., from Yolo Co. to San Francisco Co.

Resignations

D'Ancona, A. A., San Francisco Co.
Tucker, G. E., San Francisco Co.
Rude, Anna E., San Francisco Co.
Seward, Lee S., San Francisco Co.
Arnold, J. Dennis, San Francisco Co.
Kucich, O. S., San Francisco Co.
Rowe, M. J., Mendocino Co.
Lyon, George Elmer, Los Angeles Co.

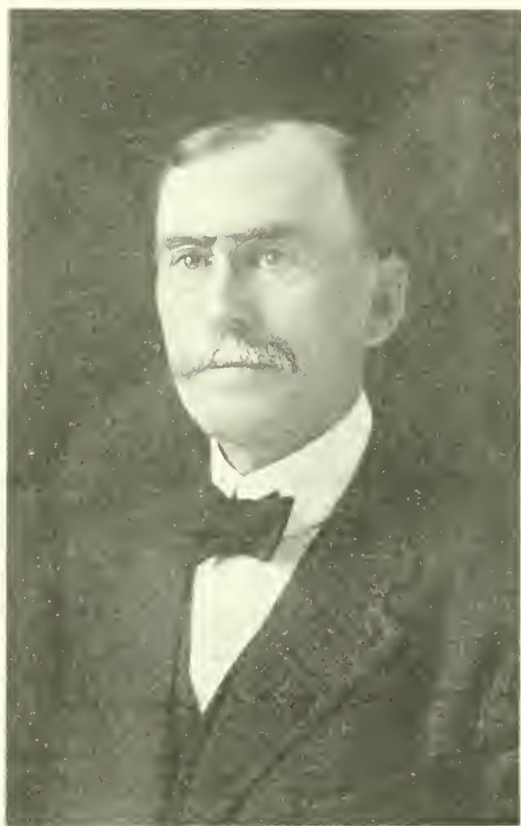
Obituary

FREDERICK R. BURNHAM.

The many friends of Dr. Frederick R. Burnham, one of San Diego's leading pioneer physicians, will regret to learn of his death from pneumonia on the 11th day of January, 1919.

For several months Dr. Burnham knew of his declining health; and while we realized that he could be with us but a short time, the end came altogether too soon. For many years his broad-gauged council in civic as well as in medical problems had been of inestimable value.

Dr. Burnham was born in New Hampshire near Concord July 9, 1853. He attended Dartmouth College, graduated from Detroit Medical School, practiced medicine in St. Paul from 1881 to 1887, coming to San Diego in the latter part of 1887. He soon established himself as a prominent physi-



F. R. BURNHAM, M. D.

cian. He married Miss Lila G. Marston, sister of George W. Marston, pioneer merchant of San Diego. For more than a quarter of a century Dr. Burnham was prominent and useful in the medical and civic life of San Diego. While rendering most efficient service in the practice of medicine he gave much attention to public affairs, and always manifested a growing interest in municipal, State and national problems.

Dr. Burnham was president of the Board of Education, president of the Board of Health, member of the State Medical Examining Board, director of the Y. M. C. A., one of the founders and the first president of the San Diego Medical Library Association, member of the American Medical Association State of California and San Diego County medical societies, of which latter he was president in 1908. He also served as counselor from the First District of the State Medical Society, his term expiring in 1912. He was a member of the University, Tuesday and Scholia clubs.

A crowning glory of his life was the recent entrance into the service of their country of his son and two sons-in-law.

Dr. Burnham's highest aspirations were those of human interest and human service. F. A. B.

Deaths

Campbell, Wm. Hayden, a graduate of Gross Medical College, Colorado, 1890. Licensed in California 1896. Died in Los Angeles January 8, 1919.

West, J. M. a graduate of the Rush Medical College 1864. Licensed in California 1880. Died in Red Bluff, Cal., February 10, 1919. Age 82.

Mitchell, Frank W., a graduate of College of Physicians and Surgeons, New York, 1880. Licensed in California 1884. Died in Bakersfield, Cal.,

January 12, 1919. Was a member of the Medical Society State of California.

Rosenkranz, Samuel Victor, Lieut. M. C., U. S. Army, Los Angeles; Colleges of Physicians and Surgeons, Los Angeles, 1915. Age 28. Died in the United States Marine Hospital, San Francisco, October 20, from pneumonia following influenza.

Bahrenburg, John E., Glendale, Cal.; Missouri Medical College, St. Louis, 1877. Aged 61. Died at the home of his son in Oil Center, Cal., December 23rd, 1918.

Campbell, William Hayden, Santa Monica, Cal.; Gross Medical College, Denver, April 8, 1890; licensed April 7, 1896; aged 70; at one time a member of the Medical Society of the State of California, and Montana State Medical Association. Died January 8, at his home, near Los Angeles.

Nichols, Heron, South Pasadena, Cal.; Northwestern University, Medical School, Chicago, 1867. Aged 77; formerly of Milwaukee; a veteran of the Civil War. Died at his home Dec. 29, 1918, from asphyxiation by illuminating gas.

Bogue, Henry Virgil, Asst. Surg. (j.g.) U. S. N. R. F., Los Angeles; Baltimore Medical College, June 15, 1909; licensed July 18, 1914; member of the L. A. Co. Med. Assoc.; age 34; a specialist on diseases of the eye, ear, nose and throat; staff surgeon to the Los Angeles County Hospital; on duty at the Mare Island Navy Hospital, Vallejo, Cal. Died in that institution, January 9, from pneumonia following influenza.

Bogue, Henry V. A graduate of Baltimore Medical College, M. D., 1909. Licensed in California 1914. Died in Mare Island, Cal., January 9, 1919, of Pneumonia. Was a member of the Medical Society of State of California.

Herlihy, John Stephen. A graduate of University of Buffalo, N. Y., 1909. Licensed in California 1909. Died in San Diego December 21, 1918. Was a member of the Medical Society State of California.

Hodghead, David A. A graduate of Bellevue Medical College, 1884. Licensed in California 1884. Died in San Francisco February 5, 1919. Was a member of the Medical Society State of California.

Bahrenburg, John E. A graduate of Missouri Medical College, Mo., '77. Licensed in California 1901. Died in Glendale, Cal., December 23, 1918.

Nichols, Theron. A graduate of Chicago Medical College, Ill., '67. Licensed in California 1886. Died in South Pasadena, Cal., December 29, 1918.

Richter, Conrad. A graduate of Rush Medical College, 1887. Licensed in California 1898. Died in Germany while in active duty, September, 1915.

Rudolph, Oswald F. A graduate of Cincinnati College of Medicine and Surgery, Ohio, 1885. Licensed in California 1894. Died in Corning, Cal., December 13, 1918.

Long, Noah Webster. A graduate of Barnes Medical College, St. Louis, Mo., 1911. Licensed in California 1915. Died October 31, 1918, of Spanish influenza, in Dorris, Cal.

Currie, Donald Herbert. A graduate of the Medical Department Washington University, Mo., 1897. Licensed in California 1912. Died in Contagious Hospital, Brookline, Mass., of pneumonia following influenza.

Grimm, Chas. H. A graduate of Harvard Medical School, Mass., '83. Licensed in California 1885. Died at sea January 3, 1919.

Brown, Wm. M. A graduate of the University of Louisville, Ky., 1872. Licensed in California 1877. Died in Oakland January 21, 1919.

Baker, Chas. Reinhold. A graduate of Cooper Medical College, Cal., 1900. Licensed in California 1900. Died in San Francisco January 30, 1919.

Mgr. Union Iron Works and Vice-President
Bethlehem Shipbuilding Corporation, Ltd.

MORE REMARKS ON THE PROGRAM OF THE APRIL MEETING.

The Committee on Scientific Program regrets that, at the last minute, it was necessary to exclude from the published program, the synopses of various papers. Every effort was made to have the synopses ready for publication, but because of a variety of unforeseen obstacles, for which the committee was not responsible, this could not be done. The synopses will appear in full on the programs issued to the members at Santa Barbara. Authors are again reminded that each essayist will be required to present to the chairman of the section before which his address is to be given, a copy of his paper before the same is read. The rules regarding time for addresses, and for discussion heretofore in vogue will be strictly adhered to this year.

The Committee wishes to call special attention to the dedicatory exercises of the new laboratory and clinic, which have been recently added to the Cottage Hospital of Santa Barbara, which will be held Monday evening, preceding the meeting of the State Society. Under the supervision of Dr. Nathaniel Bowditch Potter, this institution has been carrying out a large amount of research work, particularly on metabolic diseases, which work has been endowed by the Carnegie Institute, and a number of private individuals. There is no question whatsoever but that an institution of this type deserves the greatest encouragement from the medical profession, and it is earnestly hoped that the members of the State Society should avail themselves of the opportunity to be present, and by their presence at the dedicatory exercises, testify to the great importance of the work that is being carried on by Dr. Potter.

WHEN DOCTORS DISAGREE.

The Doctor is always expected to win in the never-ending conflict with disease. When judges or theologians disagree no one seems greatly disturbed or surprised. Statesmen may change rapidly and radically upon fundamental policies and still be hailed with enthusiastic applause. But when Doctors disagree the equanimity of some of the people is immediately agitated.

It is natural for Doctors to disagree for our profession as a whole demands incontrovertible evidence before it will accept any new doctrine. The medical profession does not proceed on assumptions or fanciful theories or baseless fabrics of dreams. The difference between Doctors who differ on some unsolved problems and their captious critics who agree on preposterous theories is the difference we always find between fact and fiction. A fairy story is more pleasing to a childish mind than a recital of facts.

The candid confession of the medical profession that science had not yet discovered any standard uniform methods either for the cure or prevention of influenza is a splendid assurance to thinking people that when the Doctors are agreed upon a method or measure it is because it has stood every acid test of science and practical experience. But spurious science that offers no remedies for any ill,

believing that the ill influenza wind is from the right quarter for its own progress, has spread its sails and is moving along right merrily. One moment they blandly say, "The Doctors have failed," and the next minute they proclaim, "There was no epidemic."

We know there was an epidemic—an epidemic whose terrible toll exceeded that of the four years of the bloodiest war of all times. We know that the invisible foes of the epidemic were more devastating than all the engines of war devised by the Allies and the Central Powers.

When we look over the long list of diseases that have been conquered and that have become mere spectres of the past we are inclined to felicitate ourselves, but science is always humble and realizes that countless mysteries remain unsolved. We have not become as gods with a knowledge of all good and evil. It is only spurious science that claims to have the key to unlock all secrets.

In the other branches of science, except medical science, when disagreements occur they are interesting only to those who disagree. But when Doctors disagree, the uninformed, the superficial observers, without any basic facts or proper preparation are quick to volunteer as referees and render decisions with dogmatic emphasis. The public does and should take a lively interest in the Doctor. He more nearly touches the lives of the people from the cradle to the grave than any other profession. The Doctors do more for the public gratuitously than any other profession or any other class. They are always ready and glad to serve, and this epidemic found them devoted to a man.

The Doctors are their own severest critics; they are never self-satisfied. Whilst reviewing regretfully the great losses of the epidemic they are seriously searching for the solution, and whilst those who endeavor to indict the medical profession are busy building wire entanglements to delay progress, scientific men are busy in the laboratories of the world, and any day "the malignant and mysterious flu" may be mastered.

A joint Influenza Committee has been created to study the epidemic and to make comparable, so far as possible, the influenza data gathered by the Government departments. The members of this committee, as designated by the Surgeon General of the Army, the Surgeon General of the Navy, the Surgeon General of the Public Health Service, and the Director of the Census, are: Dr. William H. Davis, chairman, and Mr. C. S. Sloane, representing the Bureau of the Census; Dr. Wade H. Frost and Mr. Edgar Sydenstricker, of the Public Health Service; Colonel D. C. Howard, Colonel F. F. Russell, and Lieutenant Colonel A. G. Love, United States Army; Lieutenant Commander J. R. Phelps and Surgeon Carroll Fox, United States Navy.

The influenza revealed many weaknesses in the health machinery of various States. The lack of co-ordination, unity and vigor which permitted the epidemic to spread was truly lamentable. That there is a need for radical reorganization of health work is generally conceded. The slowness and

indecision that characterized the efforts of some health authorities was largely due to lack of funds and the obstructive tactics of those who now would shift the blame and responsibility to the shoulders of the devoted Doctors.

The important practical question is to remedy defects and prepare to deal more effectively with the next epidemic, or the recurrence of the last epidemic. No one can predict with safety how long the comparative freedom we are now enjoying from the influenza will last. Anyone who has practical measures to suggest should get them into practical shape. Every householder and every resident in every community of California is interested in our common health problems, and the Journal will welcome constructive suggestions from any citizen or organization.

True science never becomes discouraged or baffled or bewildered in the presence of an unsolved problem. Each unsolved problem that challenges medical science only quickens the interest and increases the efforts of our whole profession for its solution.

PAYMENT OF STATE TAX.

In 1918 an act passed the Legislature assessing an annual tax of two dollars against each registered physician in California. In case of non-payment by March 1, the license of the offender would be subject to revocation and he could only be reinstated by paying a fee of ten dollars. This tax money is to be employed in the prosecution of illegal practitioners and similar work necessary to protect licensed physicians. On the whole, the tax is a good thing and provides an urgently needed fund for very necessary work.

Some unintentional injustice has been done certain physicians in military service who could not, or did not, receive notice and who consequently now find themselves under the necessity of paying ten dollars or of practicing illegally. Other physicians, a very few, have received due notice and refused payment. They will be dealt with under the law and have only themselves to thank for their own predicament. Altogether there have been very few complaints. None of these have merit except in the case cited, of physicians in service who did not receive notice. Here is to be considered the evident fact that these physicians have been more fortunate than their fellows. They have made sacrifices, to be sure. But the fact remains that they are fortunate and enviable to have been in the military. Among the necessary sacrifices they may reckon this tax penalty. It is, after all, a small amount and will not seriously inconvenience any who must pay it. On reflection, none of these men will be able to view it in any other light.

It is said, with some truth, that the burden of regulation of the medical profession should rest on the social body of the State, inasmuch as this regulation is solely for the protectional benefit of the people. But it must be remembered also, that legislature and people alike look to the medical profession for expert counsel and guidance in matters pertaining to health. They have a right

to expect skilled leadership in this field. Not to disappoint this expectation means that the medical profession must go ahead of its obvious duty. It must pioneer. If it does not maintain this sanitary and health leadership for which it is fitted and which is demanded of it by the public, *it may as well quit and it will soon be forced to quit.* It is a small matter to contribute a very small amount to a special fund for the protection of the public in a way that only the medical profession can protect it. We will pay the tax, rejoice in the privilege of having served our country in uniform, and make every effort to administer wisely community leadership in matters of health.

PUBLIC HEALTH AND STREET RAILWAYS.

It would seem that the price of a street car ride was a matter of economics only, but such is not the case. Throughout the United States there is a movement to advance street car fares, usually not over a cent or two. It is said, with some reason, that the increase is too small to be a serious economic burden to the public. It is said, with much less reason, that increased cost of operation justifies and necessitates the raise.

In the first place, it must be shown that increased cost of operation could not be met by economical administration and by other means than increase of fares. In the second place, street railways are a public utility, a necessity of modern life and essential for industry, business, and health. They are essential for health because they are the *sine qua non* for decentralization of towns and cities. Suburban extensions, rural homes for workmen and decent home districts for workers in cities are made possible by street railways. Whatsoever, therefore, interferes with the maximum service of the street railways to the workers, to that extent tends to crowd the workers and their families into whatever living quarters can be secured close to the industry. This means tenements congested, poor living quarters, and all the evils dependent on faulty housing which, it had been hoped, were in permanent decrease in this country. Anything, therefore, which decreases the present healthy tendency to suburban living and decent housing away from industry, for the working class, is a menace to public health, an economic and social danger, and represents a powerful reactionary influence.

Is the movement to increase street railway fares subject to this indictment? According to John P. Fox¹, it is. He states that nearly always higher fares decrease short trip passengers to such an extent that the receipts are the same as or even less than, before the change. For instance, in Columbus, Ohio, during the first two months of higher fares, the receipts were 16½ per cent. lower than the preceding year and the total passengers were 35½ per cent. less. Moreover, the public has not benefited by higher fares, as the belief that the revenues could be indefinitely increased by this simple means has led to widespread neglect of economical administration and proper upkeep on the part of electric railway lines.

¹ Survey, March 1, 1919.

Fox rightly maintains that electric railways have become one of the most useful factors in promoting healthy living conditions. They have permitted decentralization of cities and a new art of city planning which has a very practical application to public and private health. The noxious zone fare system of Europe should not be allowed to gain foothold in the United States. Cheap flat fare, a network of lines, long direct ride for five cents, electric lines used to open new living districts, all are of definite public health value. While building operations have been stopped as a war measure, is a most favorable time to foster suburban homes and destroy the tenement. Increase of railway fares does just the opposite.

Finally is to be considered the argument that cost of operation demands a higher fare. This argument, as above stated, is fallacious because street railways are a public utility and modern necessity. They are essential for sanitary housing and living conditions. The test of their just fares must, therefore, be what the bulk of the passengers can and will afford to pay. Experience shows that the five-cent fare permits and encourages decentralization, good housing, better living conditions, hence, promotes the public health. A limited experience shows that increased fares defeat these ends. If private companies cannot operate without increase of fares they should give way to government ownership whereby the deficit can become a public charge in the interest of public health. Increase of fares should be vigorously opposed everywhere.

THE BUSINESS OF MEDICINE.

Medicine is an art. It has become a science. It is and will increasingly be a business. The physician must live and support his share of social and economic order. In return for his income he has a very definite commodity to offer, a very definite contribution to make to society. This commodity is his scientific skill in instructing people how to maintain and regain health. This commodity is of definite market value and is listed among social and economic necessities. It is a necessity for society in general, for industry and for the individual. Therefore it is right that society, industry and the individual should pay the physician in proportion to the service he renders. We are not now discussing free service to the poor, further than to say that society at large must pay part of its cost while the varying balance is paid by the physician.

How much should the physician be paid and how should he be paid? For the answer to these questions we turn with authority to the general principles of merchandising which are no whit different. It is no more incumbent on the physician to dispense his services free than it is incumbent on any other seller to dispense his wares or services free. In proportion as those wares or services are human necessities, must the seller stand ready to furnish them free to the needy. For this free service, society and the giver share the cost. The physician, then, has a definite and necessary commodity to offer the public. Why should he not follow the

usual principles of good business in the transaction?

A recent interesting and stimulating brochure by Dr. G. S. Peterkin of Seattle, entitled "Ethical Economics versus Medical Ethics," analyzes the elements that compose a physician's business assets. It states that the original examination of a patient must be thorough and scientific. All methods of diagnosis must be employed. These methods must be so systematized as to omit no essential detail. To this end, a logical efficient office and organization is necessary. Thoroughness and scientific precision require time. They also spell maximum efficiency in medicine. Personal attention to a client or his affairs is absolutely requisite for success. In the day are 24 hours of 60 minutes each. Sleep, food, exercise, recreation, study, vacations, illness, unavoidable delays,—these and more, cut down the financially productive time at the physician's disposal. With due regard for maintenance of mental and physical efficiency for a long term of years, eight hours a day is the highest safe average that the average physician can maintain as a routine. Time is the physician's greatest asset, and the basis on which he must develop his income.

Conservation of time is, therefore, the physician's first necessity. To this end he must systematize and organize himself, his surroundings and his associates. He must then see that he receives due compensation for his time and skill. To this end he must keep accurate accounts, render monthly statements to his patients and see that accounts are paid. If he does not do these things, he has but himself to thank if his business fails. And his business is no different from any other business, in that to remain solvent he must follow good business methods. It is properly coming to be considered discreditable for a physician to be unbusinesslike in his business.

In the Correspondence Department of this issue is a letter from Attorney H. G. Bittleston containing some pertinent business advice for physicians in just this connection. Read it. It will do you good.

The medical profession cannot and will not remain aloof from the economic changes following the war. It is not a matter of advising an alternative course. It is a matter of pointing out the only surviving course. It holds for country doctor and city doctor alike. Systematize, organize, and be businesslike.

THE SMALL TOWN HOSPITAL.

There is no valid excuse for an inefficient small hospital. If it cannot be adequately supported and give service in accord with modern hospital ideals, it should cease to exist and the sooner the better for all concerned. Various definite and clearly understood factors tend to interfere with the success of the small hospital. The reasons for lack of success should be carefully analyzed and the appropriate cause attacked at its root. There is no reason why there should not be a hospital in nearly every small town and in many industrial and rural sections with a more scattered population. Several villages can often combine to advantage in maintaining a small hospital. The

town or village may well become the hospital center for a large surrounding territory. Why not look over your own section with this in view and see whether a hospital would be an advantage and what prevents greater success of existing hospitals?

The rural and small town hospital need not be elaborate or extensive. It may be financed in a variety of ways. It should accommodate a clinical laboratory, X-ray outfit, and library, in addition to provision for patients and nurses. It should be the medical center for its district, and be available for every reputable physician. It should have definite standards for medical work and for community service, and all its doctors should be educated in these standards. It should serve to unify the medical profession by furnishing a meeting place for programs, discussion, consultation, exhibition of cases and specimens, and consideration of common problems. It should be a medical club where the physicians become personally acquainted and lose their petty differences and jealousies in a common program to a broader end.

Such a hospital has a large service to render its constituent community as a center for public health propaganda, an educational center in disease prevention, sanitation and hygiene. The health office of the district should find it an invaluable ally and should develop it to this end. It should supply some direct help to the district, additional to the actual care of patients. It should find, almost anywhere in California, a field for local application of preventive medicine to industry. It should be such a factor of service in the community that the community will recognize its value and support it liberally. Give it publicity. Make it a necessary part of local affairs. If this is done, it will get the patients and financial support.

VOLUNTEER MEDICAL SERVICE CORPS QUESTIONNAIRES.

Early in February each physician in the United States, exclusive of those who served in the Medical Corps of the Army for the past two years and members of the Volunteer Medical Service Corps, received a communication from the Council of National Defense, requesting that he fill out and return promptly to the Washington office an accompanying questionnaire, so that there may be on file in Washington complete individual information covering the members of the profession. Simultaneously with the distribution of these questionnaires, state and county representatives of the Volunteer Medical Service Corps were instructed to urge all doctors in their communities to comply promptly with the request of the Council to fill out and forward promptly to Washington the blanks sent them; and to advise those who by any chance failed to receive blanks, to communicate with the Council of National Defense at once in order that application blanks might be furnished them.

The Volunteer Medical Service Corps was organized early in 1918 to serve the Government

during the emergency of war. As this emergency has ceased to exist, active membership in the Corps is no longer solicited. However, the survey initiated by this organization last year has proved of such value as a source of information concerning the individual members of the medical profession that the Surgeons General of the Army, Navy and Public Health Service have requested the Council of National Defense to complete it so as to include every doctor in the country, in order that a permanent record of the profession may at all times be available for reference in future emergencies. Upon their completion, the records will be transferred to the Surgeon General's Library where they will be kept up to date by a force assigned for the purpose, and be accessible to all government bureaus.

Every physician is requested to co-operate with the Council of National Defense in making this record complete by returning at once the questionnaire received or by writing to the Medical Section of the Council of National Defense, Washington, D. C., and requesting that a blank be sent him if through an oversight he did not receive one.

EDITORIAL COMMENT.

Immunity is offered anyone who writes to the Immunity Department. Don't hesitate. And don't miss reading it.

It is especially desired to secure short biographical obituaries and photos of prominent physicians dying in any section of the State. It is a mark of due respect and esteem for them, and a memorial and inspiration for their fellows.

See if your county is well represented in the county news section of this issue of the JOURNAL, and if it is not, go after your county editor. You will find his name on the first editorial page. Just notice the newsy and interesting Los Angeles county section each month.

It is probable that many symptoms even now described as characteristic of certain infectious diseases will eventually be found to be non-specific, and the result of common factors in the etiology of those diseases. An example of this is found in the non-specific protein reaction made use of in the intravenous injection of typhoid vaccine or other standardized protein in certain types of arthritis. A further step has been taken by Clyde Brooks of Ohio State University, who reports¹ the use of blood proteins as likely to provide antigens for a great variety of infections. With this in view, he prepares a mixture of secondary proteoses from hydrochloric and pepsin digestion of ox blood fibrin. This has been used clinically in streptococcus infections with promising results. The next step is investigation of the proteoses used and further clinical trial.

¹ Science, February 21, 1919.

Original Articles.

ENDOCRINE GLANDS AND THEIR RELATION TO VASO MOTOR DISTURBANCES OF THE AIR PASSAGES, HAY FEVER AND ASTHMA, WITH THE PAST YEAR'S REPORT.

By GRANT SELFRIDGE, M. D., San Francisco, Cal.

When I began the practice of my specialty twenty-eight years ago, I think I was in about the same state of mind, regarding laryngology, as the gynecologist, whose point of view at that period appeared to be that the ovary had no relation to the rest of the body and its total massacre did not cease until countless numbers of nervous wrecks and frequent insanities had resulted.

For a few years back I have been trying to discover the causes of so many failures, by laryngologists and myself in particular, to relieve people of their ills, and see too if there was not somewhere an explanation of our inability to cure many of the nose and throat afflictions and among others, as example, children of their repeated colds, anaphylactic in type, by the indiscriminate slaughter of the tonsils.*

I believe I am, like Cunningham in his article on "Ductless Glands and Dermatology" in the study of endocrinology, approaching a stage, if not actually arrived, where the scant knowledge of the subject slowly gained is giving to my mind the explanation it has been seeking these recent years.

Therefore I see no need of apology for bringing forward this most fascinating subject, as the basis of this paper.

At the November, 1917, meeting of the Section of Medicine of this society I read a paper on "Spasmodic Vaso-Motor Disturbances of the Respiratory Tract, with Special Reference to Hay Fever" and presented a botanical survey of the flora found in the Western States, particularly Utah, Nevada and California, the pollens of which might be the exciting cause of hay fever, together with a reference to other protein factors, foods and bacteria (focal infections) that might be concerned in the problem, and I also detailed the method of determining the information necessary to the proper etiological classification.

Reference also was made to the endocrine glands as the probable *fundamental* source of the vaso motor instability. Further observation and study has convinced me of the soundness of this view and in spite of the short time devoted to this side of the subject and the relatively small numbers "spotted" they have been of such an interesting character, that I am thoroughly convinced of the crying need of more careful study of this class of cases, as indeed all groups of so-called functional neuroses and others which come under the great group called "vagatonics."

In view of the generally accepted fact that vaso motor rhinitis and true bronchial asthma are anaphylactic or sensitized states, due to the parental absorption of the proteins of pollens, bacteria, foods, animal hairs and feathers, it seems wise to

me to delve further into the question of disharmony of the endocrine glands, as being the fundamental basis of sensitization or anaphylaxis, and I will therefore present instances mentioned in some of the literature, bearing on the subject.

I will then take up the pituitary as being the keystone of the arch, as it were, before presenting the past year's work with this group of vagatonics and the number in each type and with the results of those treated.

John Noland McKenzie in his classic "The Physiological and Pathological Relations Between the Nose and the Sexual Organs in Man" mentions the frequent attacks of paroxysmal sneezing in pregnant women, a condition which I myself have frequently been able to verify.

Adolph Pfingst in his article on "Paroxysmal Sneezing" makes mention of a young man who had violent attacks of sneezing whenever anything occurred to excite his sexual nature.

Moffitt found a young boy of thirteen years from Nevada with supposed hay fever, stopped up nose and sneezing attacks worse in summer, non-active to certain pollens and foods and nothing to explain the vaso motor instability except undeveloped gonads.

Hofrendahl discussing nasal dysmenorrhoea, suggests that the intermittent nose bleeds associated with it "are manifestations of a hormone activity conducted by the vegetative system and probably emanating from the corpus luteum, tending to a congestion of the capillaries with increased permeability of their walls and ruptures at their weakest point."

The almost universal use of adrenalin in asthma and so commonly referred to by writers, certainly suggests a hypo-adrenia during attacks at least. And I have observed almost universal low blood pressure in an exceedingly large percentage of true and false hay fever, which bears out this supposition.

Leopold Levy and Rothschild have reported quite a series of cases of Asthma associated with hypo-thyroidism and Barker refers to asthma as a symptom or condition in hyper-thyroidism.

Spolverini in La Pedriata observed nineteen cases of asthma in children from six months to ten years of age with the constant presence of an evident status lymphaticus.

Hofrendahl says of vaso-motor rhinitis in tuberculosis that 10% of cases in stages one and two exhibit vaso-motor disturbances of the nose and these irritations occur mostly in women and set in commonly a couple of years before the diagnostic determination of pulmonary lesions and quoting Turban who says 66% of cases of previously active tuberculosis shows an enlargement of the thyroid. Hyper-thyroidism is a frequent phenomenon.

Chandler Walker in one of his recent articles on asthma mentions a case who never had asthma until he broke his nose. At first he was found to have a hypo-pituitary disease of the feminine type and was relieved of his asthma by feeding him extract of the whole pituitary gland.

Zubelin in the Medical Record, when he says,

*This portion of the paper will be presented shortly in another paper.

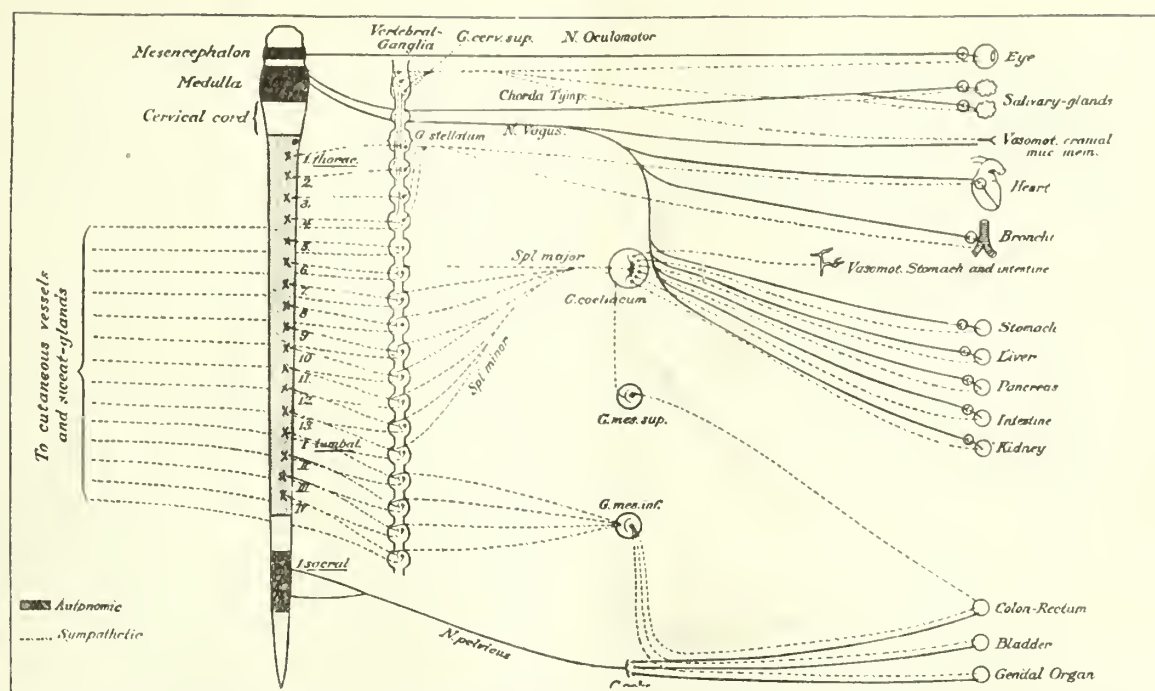


Diagram of the vegetative nervous system (according to H. H. Meyer and R. Gottlieb). The autonomous innervation is black, the sympathetic broken lines. (Taken from Falta, Wine.)

"Admitting that the posterior part of the pituitary body plays a more important part in human physiology than generally supposed especially with reference to the vagus nerve" seems to suggest that Sajous is quite apt to be correct in his suggestion that the pituitary stands first as the great regulator of the endocrine glands.

Solis Cohen reported in 1914 the use of posterior lobe pituitary substance in the "ectasic variety of ataxia autonómica," i.e., angio neurotic edema, urticaria, asthma, hay fever and the congestive variety of migraine.

Crookshank reports considerable relief in twenty cases of asthma following pituitary extract by mouth and Warfel seven cases, but the substance was apparently used empirically as no physical findings of any signs of pituitary disturbances were reported.

That pituitary has to do with the growth and development of the bones, sexual organs, with skin texture, hair distribution, as well as a most important role in the metabolism of carbohydrates. That it governs the higher emotions, love hate; is associated with the psycho-neuroses, neurasthenia, neurotic states, as well as erotic fancies, pervert practices, epilepsies, dementia praecox and even paranoia.

Inasmuch as the causative influence of the endocrine glands is shown in the present world conflict, as well as their influence in *shock* which is after all a shorter word for anaphylaxis, we are not surprised after reading the articles of M. Allen Starr on "Neuroses Dependent on Errors of Internal Secretion of the Ductless Glands," Beverly Tucker "Pituitary Disturbances in its Relation to the Psychoses of Adolescence," J. S. Lankford "Biological Law of Human Health," Zubelin "Pituitrin and Adrenalin Injections in

Hay Fever," Goetsch "The Relation of the Pituitary Gland to the Female Generative Organs," Pottinger "Anaphylaxis and the Vegetative Nervous System," that the first place should be given the pituitary as the fountain head of vaso-motor disturbances of the air passages as are found in hay fever and asthma.

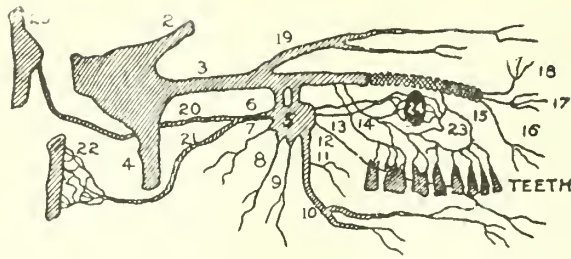
During the past year we have seen 120 cases of vaso-motor disturbances and these are divided as follows: Vaso-motor rhinitis, 27; Hay fever, 41; Asthma, 52. Of the vaso-motor rhinitis cases 11 were associated with focal infections due to antial involvement, teeth and tonsils, one to marked acidosis, seven associated with signs of hypothyroidism, pituitary or adrenal insufficiency, one due to excessive water drinking (5 gallons daily), one due to arterio-sclerosis, one due to foods.

In the vaso-motor rhinitis cases fully 40% were found with involvement of one or both antra and the more thoroughly these cavities are investigated by the X-ray and irrigation, a larger number no doubt will be found.

The question naturally arises why such a large percentage in this group?

The answer, I believe, is found in Schadle's article "The Antrum of Highmore as an Aetiological Factor in the Production of Hay Fever (so called)." He found in many of his cases large supernumary openings into the antra besides the natural opening.

This cut as shown herewith is a reproduction from his article and is exhibited to call attention to the vaso-motor supply of the nose and particularly the antrum. Schadle says irritation of these fibres in the antrum is not only capable of producing the sensory and sympathetic disturbances seen in hay fever but neglect to relieve the antrum from sources of irritation and disease, explains the



1, Gasserian ganglion; 2, Ophthalmic division; 3, Superior maxillary division; 4, Inferior maxillary division; 5, Meckle's ganglion; 6, Vidian nerve; 7, Pharyngeal nerve; 8, Posterior palatine; 9, Middle palatine; 10, Anterior palatine; 11, Inferior nasal; 12, Nasal palatine; 13, Superior nasal; 14, Posterior dental; 15, Anterior dental; 16, Labial; 17, Nasal; 18, Pappebral; On the external aspect; 19, Orbital; 20, Large petrosal; 21, Carotid; 22, Carotid plexus of sympathetic; 23, Anastomoses of anterior, posterior and superior nasal branches to supply antrum; 24, Ganglion of bochdalek; 25, Facial nerve with geniculate ganglion.

failure to cure the condition by operative and other therapy upon the nasal cavities.

I am inclined to think, however, that this applies to false hay fever and presuppose a slight bacterial invasion, with very slight constitutional signs, slight temperature, slight stuffiness of nose before the sneezing begins, with antral conditions following.

To be sure in hay fever similar conditions in the antrum are frequently observed, but the first irritation is always produced by the proteins of pollens, and subsequent invasion and infection is favored by the primary negative pressure induced in part at least, by the vaso-motor paresis of the vessels of the nasal and probably the antral mucosa.

Schadle's position was that of the majority of physicians and specialists of this day, i.e. of accepting the patient's diagnosis. In view of the work of the Peter Bent Brigham Hospital and Cooke's, I should like to state at this point, that it is impossible in my opinion for any living person to make a correct differential diagnosis of vaso-motor instability of the upper air passages without the use of proteins of pollens, foods, animal hair, feathers and bacteria.

I should like, therefore, to present at this point three cases *illustrative of vaso-motor rhinitis depending on focal infections with endocrine gland insufficiency as the fundamental basis of their trouble.*

Case 1. S. E., age 7½ years, referred by Dr. Langley Porter with the request that the causes of his hay fever symptoms be determined. Personal history: Has had hay fever symptoms for several years occurring all year round. He commences to sneeze very shortly after getting out of bed. Has frequent head colds which travel down and give him attacks of bronchitis. The attacks are typical of antral infection as the right side is always involved.

His tonsils were removed by a laryngologist of this city when about 4 years old for this condition, which was not improved by operation. He was tested with 47 food proteins, horse dander, dog and cat hair, dried staphylococcus and streptococcus and one pollen, all proving negative. The nasal

and bronchial secretions were examined and found to contain staphylococcus. X-ray plates (stereo) showed R antrum involved, confirmed by further examination (nasal). Further examination developed Leopold Levy's syndrome of "slight hypothyroidism," i.e. thin eyebrows, especially the outer third, projecting ears, prominent scapulae, dry skin, constipation, cold extremities, sensitive to cold. Had also enuresis when younger.

He was then referred back to Dr. Porter with the recommendation that small doses of thyroid be given steadily and a staphylococcus vaccine be used in case of fresh colds.

It is a year since he was seen and Dr. Porter's report is as follows: Boy's general condition vastly improved as well as the cold catching and sneezing.

Case 2. Miss G. P., age 32, says she had hay fever for a number of years. Cannot be near a horse or cat without sneezing nor can she haveorris root around and attacks are brought on during the summer or fall of the year by unidentified shrubs and grasses. She has been subject to attacks of hives which occurred in long streaks and was treated by Doctor Morrow for the same. During the past winter has had several attacks of asthma. Grandmother has asthma. She was tested with four pollens, western ragweed, pigweed, salt bush, mugwort, all negative reactions. Also with horse dander, cat hair, dog hair, chicken and goose feathers, all negative. Also with 49 food proteins, dried staph. aur., B. influenza, M. catarrhalis, strepto., all negative.

Her tonsils had been removed, no focal infections in teeth, sinuses or tonsils. She was then referred to Major Moffitt with the statement that her trouble must be associated with some "ductless gland" insufficiency. Moffitt's report is "thyroid and pituitary insufficiency" based on fat pads over the sternum, back arms and around hips, sensitive to touch. No hair dystrophies, amenorrhoea. She was put on pituitary grs. 3 tid., to be increased. This was May 19th and October 1st was given thyroid tablets grs. 5. October 30th reports by letter to me that hay fever symptoms have only troubled her twice since consulting Dr. Moffitt and in a report to Moffitt says that her menstrual troubles are now nearly normal.

Case 3. A. R. J., age 35, consulted me in May, 1918. His history is as follows: Father and mother both healthy. Father killed in accident. Mother alive and over 70 years old. Both had slight catarrh but no asthma or bronchial symptoms. Has one brother in very good health. As a child had measles, diphtheria, mumps, pneumonia when 14 years old and again when 23 years, and then again two years ago in Alaska when he nearly died. Contracted dysentery in the Philippines ten years ago. Has always been subject to frequent colds; habits, good; used to drink and smoke moderately but does not at all now. Has had dry skin as long as he can remember and never perspired to speak of. During the last three or four years the skin has become very dry, rough and "peely" especially during the past year. It was so "scaly" that it filled his underwear like bran, skin was harsh and stiff. Has had symptoms of hay fever for four or five

years. All year round occasionally yellow discharge from nose, but lately mostly mucus, accompanied by severe sneezing spells at varying intervals during the day. Has been generally nervous. *Examination:* Height 5 ft., 7 $\frac{3}{4}$ in., weight 142, subnormal temperature, pulse and blood pressure (110), urine, no acetone or indican present. Nose, deflected septum, boggy turbinates, especially middles, whitish in color, tonsils diseased, muco pus in irrigation after puncture of both antra. *Central incisors teeth slightly spaced.* Tested with the following proteins, which were negative: dog, cat hair, horse dander, chicken and goose feathers, corn, egg, wheat, milk, salt grass and mugwort (*artemisia*).

He was given three or four doses of Squibbs Respiratory Vaccine at five day intervals without effect. He was then referred to Doctor Morrow for skin diagnosis and the report was "ichthyosis." He was then put on "Burrows and Wellcome's Extract Thyroid" 1-8 gr. daily, increasing 1-8 gr. every three days up to grs. 3, and was ordered to take a vacation. When I saw him in August the skin condition was much improved and the sneezing better. I then had him strip and found a typical appearance of hypo-pituitarism in the absence of body hair, the pubic hair being of the feminine type and none elsewhere on his body. This cut shows it nicely.

At this time his thyroid was increased to three grains daily and he was given in addition ext. hypophyses (post lobe) $\frac{1}{2}$ cc with the same quantity of surrenal (adrenalin) French preparation, hyperdermically every five days. By October 1st the skin was perfectly clean, smooth and pliable, perspiration beginning, sneezing gone except when he had two colds associated with a bronchitis. About October 15th both antra punctured and washed out daily until the infection of the bronchi cleared up. Later on the septum will be corrected, tonsils removed and the antra opened if the recurrence of infections do not diminish in severity and periods of recurrence.

REASONS FOR CONSIDERING ENDOCRINE GLANDS
Insufficiency as the basis of vaso-motor disturbance in the reported cases.

Case 1. While the patient's tonsils and adenoids had been removed his attacks still persisted, and in spite of no treatment being directed to the chronic antrum disease, the boy steadily improved under thyroid medication. Sub-thyroid symptoms were present in the mother, which rather suggests that the boy's trouble was familial and not associated with an infection of tonsils and adenoids present before their removal or the present antral infection.

Case 2. The infected tonsils had no influence on the vaso-motor disturbances while the gland therapy had a very definite influence on two conditions, the amenorrhoea and the so-called hay fever asthma.

Case 3. All the conditions improved under gland preparations, while the sources of infection, tonsils and antra were untouched.

(Concluded in May.)

REPORT OF A CASE OF RUPTURED UTERUS THROUGH A CAESARIN SCAR.*

By E. M. LAZARD, M. D., Los Angeles.

Mrs. A. N. was admitted to my service in the Los Angeles County Hospital, at 11:50 p. m., December 26, 1918.

She was in extreme shock, and was vomiting almost continuously a greenish fluid which very soon became black. Her temperature was 100.8, pulse 190, respiration 50. She was in extreme acute anemia. She was within two weeks of full term, and, on examination, the abdomen was distended to a size corresponding to her date of pregnancy. The abdominal recti were rigid and there was some tympany in the upper abdomen. No fetal parts could be palpated because of the abdominal rigidity. In the median line, above the umbilicus, was a cicatrix of about four inches in length of an abdominal operation.

The patient gave a history of having suffered with a sudden severe pain upon getting out of bed about 9 p. m., December 25th, twenty-seven hours before her admission to the hospital. She had not passed any urine since the onset of her illness, and only a few drops were obtainable by catheter. She had not had any labor pains at any time, and was feeling perfectly well until the sudden attack of pain in the abdomen and vomiting on the night of the 25th. She gave the following obstetrical history:

Her first child was born eight years ago, spontaneous delivery; child still living. The second labor seven years ago, spontaneous delivery, the child being born before the arrival of the doctor, and, for some unknown reason, the child died. Third labor four years ago. Was in labor twenty-four hours when the doctor in attendance said the child was too large to be delivered normally and performed a Caesarian section, the child being stillborn. Fourth labor two years ago, two years after the section. Patient said to have been in labor for three days; child born spontaneously and is still living. Fifth labor one year ago—three years after her section. She is said to have been in labor six days; was delivered spontaneously of a child which is still living.

We had to deal with a spontaneous rupture of the uterus before onset of labor. The child was very evidently dead and the patient in a dying condition. As none of the patient's relatives came with her to the hospital, I did not care to operate in view of the patient's critical condition, thinking that she would certainly die on the table. She was given normal saline hypodermoclysis and, much to my surprise, the patient was still living at 1 p. m. on December 27th. By this time her husband had arrived and I explained to him the critical condition of his wife, telling him that she would unquestionably die if something were not done, and that she would in all probability die on the table if we attempted to do anything. As the husband wished every effort to be made, we prepared to operate, but the patient died before she was completely anesthetized.

I opened the abdomen immediately and found a full term, macerated fetus, placenta and membranes free in the abdominal cavity, which was also filled with blood and blood clots, and the uterus, which I here present, with a rupture practically throughout the length of a Caesarian scar.

In reviewing the obstetrical history of this case, one is led to admire the technical surgical abil-

*Read before Los Angeles County Medical Society, January, 1919.

ity of the doctor who performed the Caesarian section far more than his obstetrical judgment which was, to say the least, somewhat deficient. It is also a source of wonder that a uterus will stand as much as this one did—two rapidly succeeding pregnancies and long, hard labors in the presence of a Caesarian cicatrix only to subsequently rupture with the third pregnancy before the onset of labor.

A SANE YET NON-SAFE FOURTH.

By C. S. G. NAGEL, M. D., San Francisco.

H. L., a healthy girl of four years, kindly referred by Dr. Oscar Mansfeldt, bravely marching by her father's side to a picnic on July 4th last, is struck in the left eye by a rebounding thistle head. Only the slightest reddening noticeable for several days, and thereafter an ever-increasing whitish reflex from the pupil. On July 20th patient first brought to my office. There is a slightly less than 1mm x 1mm circular fresh macula throughout the full thickness of the cornea near its center in the upper outer quadrant. On dilation of the pupil a rather broad posterior synechia manifests itself in the pupillar margin close to the corneal scar and an extensive fresh opaqueness of lens over its upper half is seen. Diagnosis traumatic cataract, the synechia evidently covering the injury to lens capsule. Increasing intraocular tension necessitates a simple linear extraction on August 21st with clear pupil resulting.

Accidental traumatic cataract like the foregoing, without severe destructive ocular complications, from a pointed object thrust into the eye and promptly withdrawn without leaving any foreign matter behind or proving infectious—is extremely rare. In one history recorded the agent is a green horse-chestnut, in another a sparrow's beak, in a third a thorn. Wilful injury along the same lines, with a needle to produce cataract seems to have been not uncommon with recruits for the Russian army in order to escape service. (Talco Klin. Monatsbl. f. Augenhlk. 1892 p. 4013.)

Head Building.

THE CLASSIFICATION OF NAVAL RECRUITS

By A. W. STEARNS, M. D., Lieut. M. C., U. S. N. R. F.

INTRODUCTORY.

Since the period of the present war large numbers of young men have entered the Navy from every walk of life, embracing all degrees of ability, education and training. The numbers have been so large that no personal method of estimating the worth of the individual has been possible, yet, obviously, it is highly desirable that some sort of a classification be made, that each man may as far as possible be used to the best advantage by the Government. The first rough grouping has been made at the recruiting office, but due to the fact that work there was necessarily done hurriedly, and that the mass of recruits could only be enlisted as apprentice seamen, a classification at the training station becomes important.

Something more than a year ago the writer was detailed at a Naval training station as psychiatrist, his duties being to detect those recruits who by reason of mental defect or instability were not qualified for military service. For this purpose a brief life history was taken from each recruit upon his arrival at the station. These history cards were filed, the career of doubtful individuals followed and also failures were studied during their subsequent career. A small percentage of unfit was found, and in general, lack of success by psychopathic individuals seems to be due to one of three factors as follows:

1. Inability to learn,
2. Disciplinary troubles,
3. Sickness.

In the course of this history taking a mass of information was accumulated concerning the entire personnel. Gradually, and at first informally, different departments began to make use of this information. The public works officer, always on the lookout for artisans, began to consult the history files. The executive office searching college boys as possible material for the commissioned officers' school, found the same cards useful, and instructors in the various schools frequently referred to them in connection with their problems. This demand grew to such an extent that it seemed advisable to devise a scheme by which the whole mass of military raw material might be classified and indexed. In starting such a classification, it was somewhat difficult to know where to begin and where to stop. The first question to be answered was, what facts concerning a man are of fundamental importance to the Navy? With simplicity as well as utility in mind, four things were chosen as of primary importance.

First: Physical condition, including health in general. This needs no discussion here, as the Bureau of Navigation does not recognize graded service, and so it is presumed that every man accepted is physically fit for general service; those not so found are supposedly eliminated as soon as detected. From the experience of several thousand physical examinations, it would appear to the writer that some improvement could be made in this field if a history were taken and if more emphasis were placed upon function and less upon anatomical findings.

Second: Mental condition, including capacity as well as health. Here, again, all accepted are supposed to be free from mental disease or defect. At the present time this is not the fact. Some examining physicians advocate accepting feeble-minded and psychoneurotic patients; others make no attempt to detect them. Anyone advocating the use of mentally handicapped patients for military purposes cannot be familiar with such cases and, from the writer's experience, every attempt should be made to exclude them. Therefore, the first step aiming toward classification must be the detection of the mentally unfit. Having eliminated the unfit, * those accepted would range in mental

*Stearns, A. W., Journ. A. M. A., Jan. 26, 1918.
Stearns, A. W., Naval Med. Bulletin, July, 1918.
Stearns, A. W., Military Surgeon, Dec., 1918.

capacity from dull-normal to the most brilliant. The Navy can use men of all degrees of intelligence above the feeble-minded, but it is obviously wise to use them for different work. Rather dull men can be used for general detail and in the firing room. Brighter ones are needed to enter the various schools and the brightest would naturally be officer material.

If time enough were available, each man would probably find his level, but the "trial and failure" method is neither efficient nor economical, provided some other can be devised. Recommendations of company commanders vary in reliability as they are dependent upon a fallible personal opinion and often times upon meagre information. Educational qualifications are not enough. It is probable that psychological tests, imperfect though they may be, offer the best method of forming a general estimate of a man's capacity.

Third: Formal education. Though the amount of formal education received is not a fair index of a man's possibilities, it does help toward forming an estimate of his worth. College men have had certain special studies making them more available for intensive training as officers and, though no illiterates are received in the Navy, those with a meagre education are hardly able to do the work required by the schools.

Fourth: Industrial training. The rapidity with which the Navy has expanded has made it essential that any special skill acquired prior to enlistment be known and used. There is always a demand for certain artisans and from time to time need is had of the most diversely trained men, so that, if classified, such an one can easily be found. Also by having a list of trained men available it often happens that they are used to good advantage; the supply creating the demand. Then, again, it is of value in estimating the man's capacity to know the degree of his industrial success.

These four things, then, seem of enough importance to warrant their accurate determination in the case of each recruit. Each ship or station, by having men so classified could use its man power to better advantage. Properly indexed, this information is readily accessible and when a man's subsequent record is at hand it may truly be said that a beginning has been made in the "measure of a man."

Different departments will later on wish to further analyze the material in search of more special ability or training, but this much is necessary on every man.

MENTAL CLASSIFICATION.

The accuracy with which a man's mental capacity can be estimated by psychological tests has not been finally determined. Opinions vary from that which says that life itself is the only test to the one which presumes to give final judgment by some pet test. The Binet-Simon Scale has everywhere been accepted as an aid in determining feeble-mindedness, and certain tests have proven of value in educational work.

It also seems to be quite generally agreed that there is an high correlation between the score made on mental tests and general capacity. Tests for special ability have probably not been so successful. The use of a scale to be given to groups has recently been made a part of the army routine and the psychological department is now engaged in grading every soldier. Neither the scale nor its results are available for general use. The navy problem is somewhat different from that of the army because of the almost entire lack of illiterate and non-English speaking men. As there is no provision by which specially trained men can be obtained to do testing in the navy, it is necessary to have a scale which can be used by assistants only slightly trained. In choosing individual tests for a series it seemed to the writer that the Trabue Language Scale offered the best already standardized material. After more or less initial experiments Trabue Scale C was chosen as a nucleus for a series. It has been used exactly as directed in Trabue's book "Language Scale Tests." To this have been added four other tests, making the series as follows:

1. Trabue C.
2. Dissected sentences from Binet-Simon Scale.
3. Cancellation test.
4. Memory span for numerals.
5. Healy Code.

As the Trabue was scored on a basis of 20, the others have been standardized to this. Three dissected sentences are given in the second test and credit is given only for perfectly constructed sentences. If one was correct a mark of six has been given, 13 for two, and 20 for three. Time of three minutes has been allowed for the three sentences. For the third test a piece of prose containing 42 e's has been used and one minute given for canceling the e's. One has been deducted from 20 for each e missed and if less than 22 were canceled zero has been given. For the fourth test three attempts at 5, 6, 7, 8 numerals have been given. A credit of five has been made for one correct series making a total of 20. In the fifth, the Healy code, a sentence of 10 letters has been required to be written and credit of two given for each correct letter. Thus a total perfect score will be 100.

Figure No. 1 shows the distribution of 4000 scores.

These were at first divided into quarters which fell at 57, 75 and 86. For utilitarian purposes these groups have been somewhat modified and are now divided as follows:

- Group No. 1 Below 65, inferior.
- Group No. 2 65 to 75, low average.
- Group No. 3 75 to 85, high average.
- Group No. 4 85 to 100, superior.

It will be seen that the score covers the whole range of intelligence, being easy enough so that the most stupid can get something and difficult enough to tax the most brilliant, there being but two zeros and 14-100's in the series of 4000. The

relative value of the five tests is shown in figure two.

The most important questions to be determined were the meaning of the result of this test and its application. Assuredly there is some difference between the man scoring 65 and the man scoring 85. In order to get the relation between the score and the actual capacity of the man all recruits entering several schools were graded. Then as they succeeded or failed, completing the course in the school being considered a success and being dismissed from the school being considered failure, this result was correlated with the score. It was soon apparent that there was a tendency to fail on the part of the low men and to succeed on the part of the high. A difficulty encountered was that the schools maintaining a high standard took few low men, while those with a low standard graduated nearly all who entered. However, after some months of trial results have been obtained which appear to justify the use of the scale. Figure 3 shows the result in the radio school. Similar cases occurred in other schools.

It is apparent that those below 65 (Group I) are so apt to fail in whatever school they may enter that it is wise economy to reject them. For some time past no man has been admitted to any school with a score below 65, this comprising, roughly, the low 30% of the personnel. In some cases where more applications have been received than men were needed, this has been raised to 75. It appears from experience with this method that it is more accurate and more fair than either a written school examination, an educational requirement or a company commander's recommendation. No claim should be made that it is a method of individual study, but it can be said that, with large groups of men and no time for

painstaking individual study, it is a method by which success or failure can be predicted in a large enough percentage of cases to make its use expedient. Its use standardizes admissions to the various schools in the Navy as no other form of examination could possibly do.

Besides being of use as a standardized requirement of school entrance, it is necessary from time

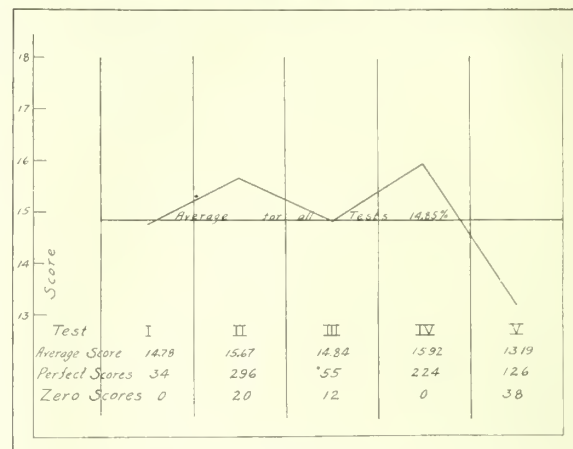


Fig. II. Comparing average total score and averages of each test.

to time to judge men accurately and no one point is of more value than this score.

EDUCATIONAL CLASSIFICATION.

This is relatively unimportant and yet is of some value in estimating a man's worth. There is a continual need of college men on ac-

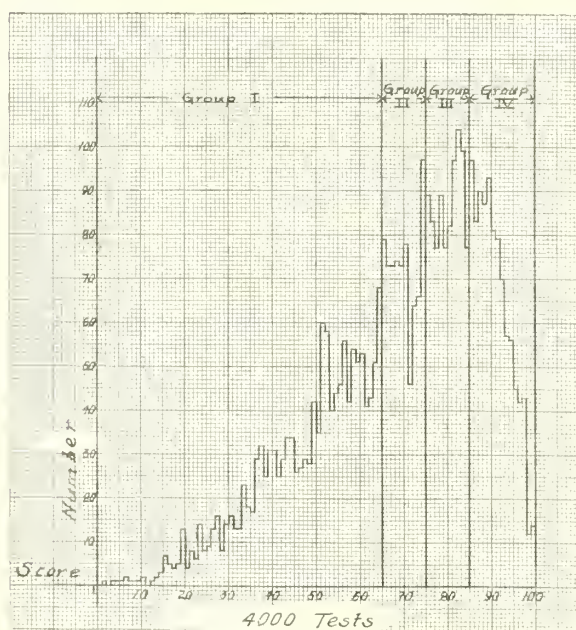


Fig. I. Showing distribution of 4,000 scores and group 1, 2, 3, 4.

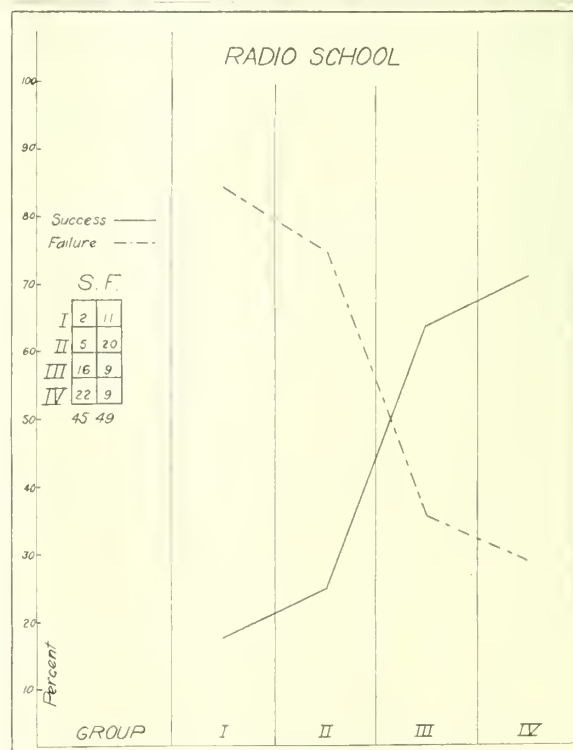


Fig. III. Showing relation of mental groups to success and failure in Radio School. The standard of this school was high as shown by larger numbers in higher groups and large number of failures.

count of their having studied higher mathematics and other things needed by the Navy, also those men with meager education are not so readily trained in the various schools. The relation be-

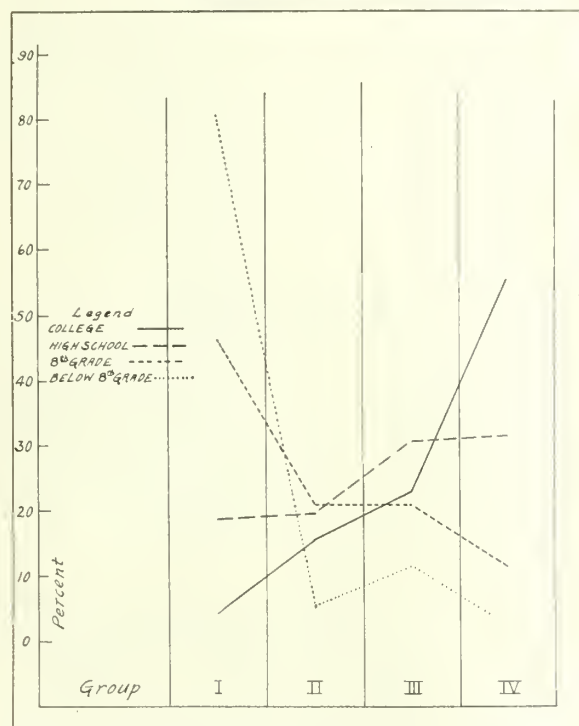


Fig. IV. Showing percentage distribution according to education of men in each group.

tween education and mental capacity is shown by Figure 4.

It appears from this that there is a tendency on the part of college men to make high scores and on the part of those with less than eighth grade education to make low scores, yet it is impossible to predict a man's score by his education because

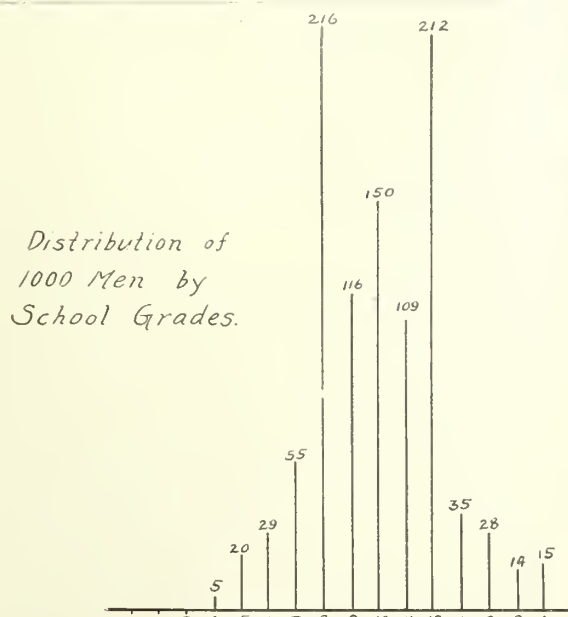


Fig. V. Showing relative amount of education of 1,000 cases from first grade through college.

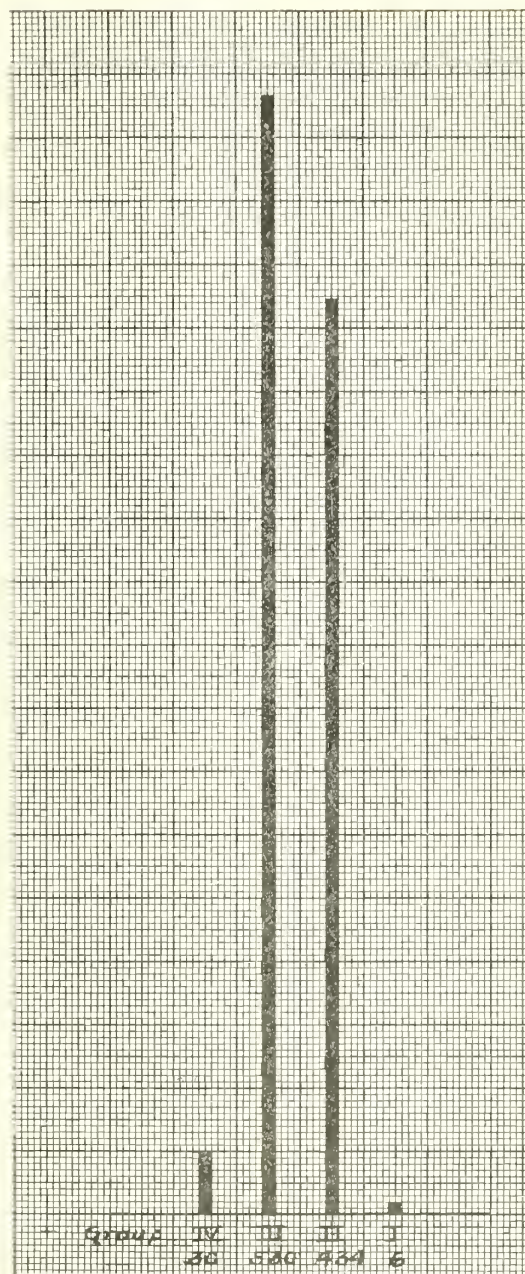


Fig. VI. Showing distribution of 1,000 men according to industrial groups.

certain of those with little education make high scores and vice versa. There is some justification in having an educational requirement for admission to the schools, but from our figures it appears that this is not as reliable as the result of a psychological test. There has been some difficulty in grading men according to education because of the diversity of educational institutions in different parts of the United States.

As with mental capacity and industrial training it was desired to put them in four groups, No. 4 was given to college men, this comprising all men who had formal education in excess of four years high school; No. 3 was given to men who had been to high school; No. 2 was given to those who

had finished the 8th grade; No. 1 was given to men who had not finished the eighth grade.

Thus: No. 1—Less than 8th grade,
No. 2—8th grade,
No. 3—High school,
No. 4—College.

Figure No. 5 shows relative number of each group.

INDUSTRIAL CLASSIFICATION.

The kind of work which an individual has been doing previous to enlistment is of value for two reasons: In the first place it gives an idea of the capacity of the individual; in the second place there is a constant demand in the Navy for men who have had some particular sort of training. Starting with a list including practically all occupations, and another list including the occupations of 10,000 recruits, a final classification including 53 different occupations has been used. The vast majority of the men are relatively unskilled. Many of those who have special skill are of no particular value to the Navy because of this training, so those occupations selected for a place on the list have been taken either because there was a demand from the heads of departments for men with a particular training or because it seemed that men with certain occupations ought to be used for special work. Although on the history card what each man was doing prior to enlistment has been recorded, only those who have worked a year or more at a particular kind of work have been classified. Large groups of unskilled men, such as students and farmers being of no special value to the Navy, have been grouped as miscellaneous untrained. Those having skill in some occupation which might be of some use to the Navy, but which rarely occurs, have been grouped as miscellaneous trained. The list has finally been reduced to 53 different occupations, all of which have at some time or other been of use at the station.

Groups have been made as follows:

- No. 1. Industrial misfits, such as vagrants, criminals or those continually shifting work.
- No. 2. Unskilled, such as farmers and students or day laborers.
- No. 3. Experienced. Those who, although they have not a trade and so would not be considered trained, have had enough experience at a given occupation to make this possibly worth while.
- No. 4. Trained. Embracing highly skilled individuals who have learned a trade or have a profession or business.

Figure 6 shows relative proportion of each group.

In connection with this first group, certain occupations seem to be made up to quite an extent of rolling stones. Among these may be mentioned hotel, pool room, longshore workmen, barbers, teamsters, etc. Each one of the 53 occupations has been given a serial number which can be used in place of the name when it is desired to express a man's formula numerically. The fol-

lowing is a list of the occupations chosen, preceded by the serial numbers:

- | | |
|---------------------------------|------------------------------------|
| 1. Actor. | 29. Jeweler. |
| 2. Architect. | 30. Machinist. |
| 3. Assayer. | 31. Musician. |
| 4. Attorney. | 32. Motor Mechanic. |
| 5. Auto and Motor Truck Driver. | 33. Miscellaneous, trained. |
| 6. Athlete. | 34. Miscellaneous, untrained. |
| 7. Baker. | 35. Motion Picture Mach. Operator. |
| 8. Barber. | 36. Newspaper—Editor, Reporter. |
| 9. Blacksmith. | 37. Optician. |
| 10. Boilermaker. | 38. Photographer. |
| 11. Bricklayer. | 39. Painter. |
| 12. Butcher. | 40. Patternmaker. |
| 13. Carpenter. | 41. Plumber. |
| 14. Cabinet Maker. | 42. Printer. |
| 15. Chemist. | 43. Pipefitter, Steamfitter. |
| 16. Civil Engineer. | 44. Stone Mason. |
| 17. Cement Worker. | 45. Shipwright. |
| 18. Cook. | 46. Shipfitter. |
| 19. Clerk—Office. | 47. Sheet Metal Worker. |
| 20. Clerk—Store. | 48. Shoemaker. |
| 21. Clerk—Drug. | 49. Tailor. |
| 22. Clerk—Postoffice. | 50. Telegrapher. |
| 23. Coppersmith. | 51. Tinsmith. |
| 24. Electrician. | 52. Tool Maker. |
| 25. Engineer. | 53. Welder. |
| 26. Foundry Worker. | |
| 27. Fireman. | |
| 28. Interpreter. | |

It had been customary to tabulate the arrivals, classified by occupations, every month and to send this list to the heads of departments, as these men often select persons from this list which they would not otherwise use; also, a cross index by occupation is kept of the entire population of the station and is accessible in case men are wished of any particular trade.

CONCLUSION.

From the foregoing it will be seen that each man is graded according to the Navy standard on a basis of 1—2—3—4, as follows:

Mentally:

1. Inferior.
2. Low average.
3. High average.
4. Superior.

Educationally:

1. Less than 8th grade.
2. 8th grade graduate.
3. High school students.
4. College.

Industrially:

1. Misfits or failures.
2. Unskilled.
3. Experienced.
4. Skilled.

In addition, each occupation has been given a serial number from 1 to 53. This makes it possible to give every man a numerical formula representing his capacity and training. The serial number representing his occupation is put at the right of a decimal point as it denotes a qualitative factor, the others being quantitative. For instance, 444.4 would represent a man of superior intelligence, college education and highly skilled, his

occupation being an attorney. Also 111.34 would mean inferior intelligence, less than 8th grade education and industrial failure, his work being odd jobs.

This enables a simple index, making it possible to locate and evaluate men easily. Also each number serves as a check upon the other, as a man with a 4 in his formula must be taken seriously, and a 1 means that he should be suspected of incapacity. As a matter of fact the formulas are very consistent, it being rare to find both a 1 and a 4 in the same formula.

Naval Hospital, Mare Island, Cal.

Correspondence.

MEDICAL EXAMINERS' ASSOCIATION.

To the Editor: If it is not too late, I would like to have some notice put in the next number of the State Medical Journal informing the medical examiners of the Exemption Boards that an Association of these examiners will be organized at the time of the State Medical Society meeting in Santa Barbara in April.

Very truly yours,

HENRY H. SHERK.

Pasadena, Cal., March 10, 1919.

ADVICE FROM A COLLECTOR.

March 7, 1919.

To the Editor:—

A few practical suggestions and a little legal advice taken together, make a good tonic for the average doctor's finances. My observations indicate that the ethics, and the professional interest taken by most surgeons and medical men in the performance of their duty to their patients, leaves too little time for the analyzing of their office records. Consequently the simplest system of keeping records that provides all that is required by law is what you must have and to present a case in court in proper form, the original book or books are needed where the suit is on a book account. The book account should be commenced or opened to show the full names of all parties whom you expect to hold responsible, the date of rendering the services, what the services were, and to whom rendered. The account outlaws four years from the date of the last service or the last credit on the account. (Ref. 24 Cal. App. Dec. Page 166.)

Now for the practical suggestions: You want a card system indexed alphabetically and numerically, then have your secretary send out statements regularly each month to all. By so doing, your best patient understands that your office is being run in a business-like manner and will take no offence.

A doctor's services come under the head of necessities and should receive the same attention that a grocery account is usually given. Following that line of reasoning the wage earner should regularly take care of his doctor and the business man should remit immediately when the statement of account is received by him.

My idea in this letter is to caution the medical

profession against the lack of system in the office and the usual inclination to grant unlimited extension of time on your accounts receivable.

In opening a new account, you should be particular to take all the information which might be of service to you later, in case the patients were to die, leave the country, become dissatisfied with your services or the amount of your claim. In short keep a perfect system of accounts.

Very truly yours,

H. G. BITTLESTON.

March 7, 1919.

San Francisco.

ASSEMBLY BILL NO. 798.

To the Editor:—In answer to your invitation for an expression of views from the medical profession with reference to the present Workman's Compensation Law, I desire to call the attention of the profession and others interested to an amendment to Section 9 of said law, which was introduced in January, 1919, and known as Assembly Bill No. 758.

Doubtless the insurance companies will oppose its passage as being too "democratic." They now have a monopoly, and designate the physician regardless of the wishes of the patient, his family or friends, or the physician who may have been called to attend the case. When requested by either to allow a physician other than the one designated by them to continue with the case the usual answer is, "Yes, if the bills are met by the injured party or his friends."

Some cases in point: A man is sent to me by his employer late at night with a broken leg, both arms broken, and numerous scalp wounds. I work all night fixing him up and trying to keep him alive. Three days later the company's agent telegraphs from Los Angeles to their "designated" physician to take charge of the case, which he attempts to do without so much as "by your leave." If the case is taken over by a new physician he must remove casts, bandages, dressings, take new x-ray pictures perhaps, before he can intelligently handle the case, and the injured employee must suffer the extra pain and discomfort to satisfy the mandates of the insurance companies who have made special arrangements with a certain number of physicians and surgeons in each community to handle their cases.

Another example of the working of the present law: An employee is injured some distance out in the country; the employer phones to a physician nearest the location to come. The doctor responds and takes the patient to a hospital, and when he is on the operating table a phone request is received from the insurance agent to turn the case over to a "designated" surgeon, which necessitates the further travel of twenty miles before relief is had. The employee must endure the extra suffering and delay in consequence of the removal, or pay his own bills.

Many such cases of injustice may be expected under the present law.

It would seem reasonable to expect that the just interests of the insurance companies would

be properly conserved by allowing the recognized medical societies throughout the State to have some voice in determining who are competent to handle such cases. The present unethical system engenders jealousy and animosity among physicians and does not secure the best possible professional skill.

Some have advanced the argument that the matter was settled and there was no use trying to change it. A question is never settled until settled right.

F. L. DERBYSHIRE.

Acting Assistant Surgeon, U. S. Public Health Service.

720 American Bldg., San Diego, Cal.

AGAINST MONOPOLISTIC STATE ACCIDENT INSURANCE.

To the Editor:—Kindly permit me to take advantage of the editorial request in the February number of the Journal, to be heard with reference to the Industrial Accident Insurance.

Before Accident Insurance came into being the manner in which injured employees were often permitted to suffer badly through poverty and the indifference of the employer became a scandal. It resulted in much unwholesome litigation, the result of which was far from satisfactory in most cases. It is not strange that a necessity developed in the minds of the public for some remedy for this evil. Unfortunately the remedy which has been attempted in California is so positively political in its nature, that it is a grave question, either the benefits accruing from its action have in any measure whatsoever outweighed the evil. In the first place the rank and file of the Medical Profession were neither consulted nor considered by the politicians in Sacramento in jamming through this bill. A few of the better known men among the officials of the various Medical Societies of this State were taken into consultation, cajoled or brow-beaten into admitting that this measure was "going to come anyway" and they had better accept it on whatever terms the politicians might wish to offer and so it became a law.

The fact that physicians and surgeons should be required to have their bread and butter sacrificed in an attempt to give to the laboring man, not only care during an injury and convalescence therefrom, but also compensation so that he would practically miss nothing through his misfortune is not fair. We do not complain about the proper care of the laborer, who is so unfortunate as to receive an injury while working at his job. However, if he is worthy of bread and butter and care, so is the doctor.

We will suppose that we had no Insurance Law and hence, no Insurance Commission. By way of illustration, we would like to ask a few questions. Would a longshoreman be regarded as necessarily fitted to become a chairman of such a Commission, and supervise the handling of surgical cases? Would a mediocre attorney be regarded as much better fitted for the same position? Does it seem reasonable that recently graduated medical men with scant experience would be the safest individuals to handle such work?

There seems under the present law to be no discrimination in the care of injured individuals. Contributory negligence and alcoholism or mental or physical unfitness for his job do not seem to be considered at all in the handling of these cases. It is like riding down a street in a golden chariot, sowing nickles broadcast in the vain hope of abolishing poverty.

The statement is made "That Workman's Compensation is and must be." This statement is a partisan allegation in the nature of political propaganda. It argues neither for nor against Workman's Compensation. The statement that the "free choice of physician can not be left to the employee" is also political propaganda. If the workman were permitted to choose his own physician and be placed on his own responsibility to meet the bills, then received a straight compensation in lieu of wages, it would simplify the whole matter. It would of course be distressing to several political clans to have to let go of a monopoly of the Accident Insurance business, but it would be vastly more satisfactory, give much better results to the employee and rid the whole business of the bulk of dissatisfaction which now exists.

The old insurance companies have written accident insurance for many years. It has been written with some discrimination as to the fitness of the insured to carry insurance. The insured has never been compelled to submit to the care of a doctor that he cordially disliked or in whom he had no confidence. The doctor has always had an opportunity to a fair chance to care for such patients, as saw fit to employ him. There is no just reason why Industrial Accident Insurance should create a monopoly on the part of a few political favorites. The existing state of affairs is pauperizing to the employee and offers a ghastly pittance to the doctor.

Yours respectfully,

ETHAN H. SMITH.

San Francisco, California.

February 14, 1919.

(Comment: Dr. Smith concedes that the condition which brought about the Workmen's Compensation Act necessitated some remedy "in the minds of the public," but says that the Industrial Accident Commission is "so positively political in its nature that it is a grave question whether the benefits accruing from its action have in any measure whatsoever outweighed the evil." He also complains that the medical profession was neither consulted nor considered in the enactment of this law; that the act as it operates imposes an unjust burden on the medical profession for the benefit of labor.

Unquestionably the medical profession and the legal profession have by this act been subordinated in the interests of the greater good. Neither profession so far as we know did anything in a collective or united way to assist in the framing of the act. It may be that neither profession in a collective way was consulted by those who sponsored the law, but this could be readily answered by the statement that neither profession has ever evidenced any collective and united interest in social welfare questions. If the medical profession would, as an organization, undertake public health work and give the necessary leadership to the well defined present determination on the part of the public to remedy public health conditions, the profession would soon exercise its due amount of influence, the lack of which is now so keenly felt by many individuals.

That the Workmen's Compensation Act is here to stay is amply evidenced by the repeated votes of confidence that the people at large have given to the Commission and its work. At the last election a constitutional amendment was adopted at the request of the Commission greatly amplifying its power. The statement in the editorial that workmen's compensation "is and will be" is uncontroversially warranted by the facts.

The answer to the whole question so far as the individual physician is concerned is to join the League for the Conservation of Public Health and thereby give some effective expression to the views of the profession.)

SCIENTIFIC PROGRAM FOR GENERAL AND SECTION MEETINGS

MEDICAL SOCIETY OF THE STATE OF CALIFORNIA

SANTA BARBARA,

April 15, 16, 17.

Tuesday Morning

9:00 o'clock.

Presidential address and reports.

Tuesday Afternoon Session

2:00 o'clock.

MEDICAL SECTION

1. WILL THE WAR INFLUENCE THE PRACTICE OF MEDICINE AS A BUSINESS?

JOHN C. KING, Banning.

Discussion opened by T. C. Edwards.

2. MEDICINE TODAY AND TOMORROW.

RAY LYMAN WILBUR,

Stanford University.

3. CHILDREN'S YEAR WORK.

ADELAIDE BROWN, San Francisco.

Discussion opened by Langley Porter and E. C. Fleischer.

4. PROGRESS IN THE CONTROL OF VENEREAL DISEASES IN CALIFORNIA. POST WAR PROBLEMS.

LEWIS MICHELSON, Director,

Bureau of Social Hygiene,

California State Board of Health.

5. THE PROBLEM OF THE WOMAN VENEREAL DISEASE CARRIER.

ETHEL M. WATTERS, Sanitarian,

Bureau of Social Hygiene,

California State Board of Health.

EYE, EAR, NOSE AND THROAT SECTION

1. AVIATION'S DEBT TO MEDICINE.

CHARLES G. STIVERS, Los Angeles.

Discussion opened by George H. Willcutt.

2. PARALYSIS OF THE OESOPHAGUS WITH CASE REPORTS.

HARVARD McNAUGHT, San Francisco.

Discussion opened by Thomas Inman.

3. TRACHOMA.

HUGO KIEFER, Los Angeles.

Discussion opened by Alexander Brown.

4. CANCER OF THE EAR, NOSE AND THROAT, AS WELL AS TUBERCULOSIS, LUPUS AND VARIOUS MINOR AFFECTIONS TREATED BY HIGH FREQUENCY CURRENT, WITH DEMONSTRATIONS OF CASES.

CULLEN F. WELTY, San Francisco.

Discussion opened by Frederick J. Old.

5. WAR WOUNDS INVOLVING SINUSES OF HEAD WITH X-RAY PLATES.

HAROLD A. FLETCHER.

GENITO-URINARY SECTION

1. NEPHROLITHIASIS; REPORT OF A RATHER UNUSUAL CASE.

WIRT BRADLEY DAKIN, Los Angeles.

2. CONSERVATIVE TREATMENT OF URETERAL CALCULI

R. L. RIGDON, San Francisco.

3. ACRIFLAVINE IN THE TREATMENT OF GONORRHEA.

JOHN C. SPENCER San Francisco.

4. CLINICAL OBSERVATION AND TREATMENT OF CHRONIC PROSTATITIS.

L. P. PLAYER and C. P. MATHIE,

San Francisco.

5. CHRONIC URETHRITIS IN WOMEN.

H. WELLAND HOWARD, Los Angeles.

6. REFINEMENT OF COLORIMETRIC METHOD WITH SPECIAL REFERENCE TO INDIGO CARMINE AS A BLADDER TEST.

GEORGE G. REINLE and

E. SPENCER DE PUY, Oakland.

7. TECHNIC OF THE UROLOGICAL HISTORY.

H. A. ROSENKRANZ, Los Angeles.

Wednesday Morning Session

9:00 o'clock.

MEDICAL SECTION

1. THE TREATMENT OF GONORRHEA AND SYPHILIS IN WOMEN.

WILLIAM E. STEVENS and

MAURICE HEPPNER, San Francisco.

2. THE USE OF CAMPHOR AS A STIMULANT AND AS A PNEUMOCOCCICIDE IN PNEUMONIA.

F. F. GUNDRUM, Sacramento.

3. THE INTENSIVE TREATMENT OF EPIDEMIC MENINGITIS.

DONALD J. FRICK, Los Angeles.

4. PULMONARY CONDITIONS WRONGLY DIAGNOSED AS TUBERCULOSIS.

WM. C. VOORSANGER, San Francisco.

Discussion opened by S. H. Hurwitz and F. M. Pottenger.

5. THE USE OF INTRAVENOUS INJECTIONS OF SUBLIMATE IN THE TREATMENT OF SUPPURATING AND INFECTIOUS DISEASES.

VICTOR G. VECKI, San Francisco.

6. INFECTIONS OF THE ORAL CAVITY AND THEIR RELATIONS TO SYSTEMIC DISEASES.

H. C. BAGBY, Santa Barbara.

SURGICAL SECTION

1. PERFORATED GASTRIC AND DUODENAL ULCER.

HARLAN SHOEMAKER, Los Angeles.

2. PATHOLOGIC INDICATIONS FOR CHOLECYSTECTOMY.

ANDREW S. LOBINGIER, Los Angeles.

Discussion opened by C. W. Anderson.

3. PRESENT PROBLEMS IN APPENDICITIS.

W. L. HUGGINS, Los Angeles.

4. EMPYEMA.

GUY COCHRAN, Los Angeles.

5. TECHNIQUE OF THE USE OF CARREL-DAKIN SOLUTION.

HAROLD BRUNN, San Francisco.

6. SURGICAL TREATMENT OF SEQUELS OF INFLUENZA (EMPYEMA AND LUNG ABSCESS).

LEO ELOESSER, San Francisco.

EYE, EAR, NOSE AND THROAT SECTION

1. SEPTIC LEPTOMENINGITIS OF OTITIC ORIGIN. REPORT OF CASE.

EDWARD C. SEWALL, San Francisco.

Discussion opened by George W. McCoy.

2. MENINGITIS OF OTITIC ORIGIN. CASE REPORT.

GEORGE S. WELLS, Santa Barbara.

Discussion opened by C. R. K. Swetnam.

3. **ABDUCENS PALSY—TRANSPLANTATION OF VERTICAL RECTI IN THREE CASES.**
RODERIC O'CONNOR, Oakland.
Discussion opened by Lloyd Mills.
4. **THE PATHOGENESIS OF PACHYMENINGITIS FOLLOWING NASAL OPERATIONS, WITH CASE REPORT.**
ANDREW B. WESSELS, San Diego.
Discussion opened by Hill Hastings.
5. **MALIGNANCY OF ETHMOIDS WITH CASE REPORTS.**

P. A. JORDAN, San Jose.
Discussion opened by Frank A. Burton.

GENITO-URINARY SECTION.

1. **SURGICAL PATHOLOGY OF THE SEMINAL VESICLES.**
J. R. DILLON and FRANK E. BLAISDELL, San Francisco.
2. **STRICTURES AND OBSTRUCTIONS OF THE URETER WITH A METHOD OF RE-ESTABLISHING THE PATENCY OF THE URETER.**
JAMES J. MOLONY, San Francisco.
3. **THE TREATMENT OF CANCER OF THE PROSTATE.**
FRANK HINMAN, San Francisco.
4. (a) **CASE REPORT TWENTY YEARS AFTER A BOTTINI OPERATION.**
(b) **REPORT OF A CASE OPERATED UPON BY GERAGHTY'S METHOD OF TOTAL REMOVAL OF THE CANCEROUS PROSTATE.**
GRANVILLE MACGOWAN, Los Angeles.
5. **CONTRACTURE OF THE BLADDER NECK AND OTHER OBSTRUCTIONS THEREAT, EXCLUSIVE OF PROSTATIC HYPERTROPHY AND CANCER, AND THEIR TREATMENTS.**
ROBERT V. DAY, Los Angeles.

Wednesday Noon

LUNCHEON BY LEAGUE FOR THE CONSERVATION OF PUBLIC HEALTH.
12:00 o'clock.

**HOTEL POTTER
INTRODUCTORY ADDRESS.**
JOHN H. GRAVES, M. D.,
President of the League for the Conservation of Public Health.

THE MISSION OF THE LEAGUE.
JAMES FRANKLIN SMITH, M. D.,
San Francisco, Cal.
THE CORRELATED ACTIVITIES OF THE LEAGUE AND THE MEDICAL SOCIETY OF THE STATE OF CALIFORNIA.

DUDLEY SMITH, M. D., Oakland, Cal.
THE PHYSICIAN, THE PUBLIC AND PUBLICITY.

MR. CELESTINE J. SULLIVAN,
Executive Secretary of the League.
PUBLIC HEALTH LAWS AND THE RIGHTS OF THE PEOPLE.

HARTLEY F. PEART,
Counsel for the League.
THE SERVICE OF THE PHYSICIAN TO SOCIAL AGENCIES.

HON. WILLIAM A. BEASLEY,
President of the California State Conference of Social Agencies.

LABOR'S CONTRIBUTION TO HEALTH CONSERVATION.

HON. P. H. MCCARTHY,
President State Building Trades Council of California.

THE INTEREST OF INDUSTRY IN BIGGER BUSINESS AND BETTER HEALTH.

HON. JOSEPH J. TYNAN,
Mgr. Union Iron Works and Vice-President Bethlehem Shipbuilding Corporation, Ltd.

The officers of the League extend a most cordial invitation to all members of the Medical Society of the State of California to attend this luncheon.

Wednesday Afternoon Session

2:30 o'clock.

MEDICAL SECTION

(Symposium on Influenza.)

1. **ETIOLOGY OF THE RECENT RESPIRATORY PANDEMIC.**
KARL MEYER, San Francisco.
2. **A REPORT OF THE SAN FRANCISCO HOSPITAL ON INFLUENZA PNEUMONIA (40 minutes).**
By the HOSPITAL STAFF.
3. **A REPORT OF THE SAN FRANCISCO CHILDREN'S HOSPITAL ON INFLUENZA IN CHILDHOOD.**
By the HOSPITAL STAFF.
4. **"THE COMPLICATIONS OF THE INFLUENZA PANDEMIC OF 1918-1919 AS COMPARED WITH THE PANDEMIC OF 1889-1891.**
HANS LISSER, San Francisco.
5. **THE TREATMENT OF POST-INFLUENZA PNEUMONIA IN AN ARMY HOSPITAL.**
W. W. ROBLEE, Riverside.
6. **A CONSIDERATION OF THE METHODS USED IN THE CONTROL OF INFLUENZA.**
W. H. KELLOGG, Secretary,
California State Board of Health.

EYE, EAR, NOSE AND THROAT SECTION

1. **OPHTHALMOLOGICAL LESIONS DUE TO FOCI OF INFECTION WITH CASE REPORT.**
LEON W. MANSUR, Los Angeles.
Discussion opened by Hayward G. Thomas.
2. **THE MODERN MASTOID OPERATION.**
FRANCIS M. SHOOK, Oakland.
Discussion opened by C. H. Montgomery.
3. **THREE GENERATIONS OF FAMILIAL ANIRIDIA (FROM THE OPHTHALMOLOGICAL DEPARTMENT OF THE UNIVERSITY OF CALIFORNIA.**
W. S. FRANKLIN and E. F. GLASER,
San Francisco.
Discussion opened by W. H. Dudley.
4. **HYSTERIA SIMULATING BRAIN TUMOR, WITH CASE REPORT.**
HARRINGTON B. GRAHAM,
San Francisco.
Discussion opened by Charles Lewis Allen.

Thursday Morning Session

9:00 o'clock.

MEDICAL SECTION

1. **COMPARISON OF THE ACTION OF ROENTGEN RAYS AND RADIUM.**
ALBERT SOILAND, Los Angeles.
2. **SOME RECENT TENDENCIES IN THE DIAGNOSIS AND HANDLING OF CIRCULATORY DISORDERS.**
EUGENE S. KILGORE, San Francisco.
3. **AMINO ACIDS AND HYPERTENSION.**
LORENA M. BREED, Pasadena.
4. **HYPERTENSION.**
W. C. ALVAREZ, San Francisco.
5. **STUDY OF ONE HUNDRED AND FIFTY CASES OF HYPERTENSION.**
ROLAND CUMMINGS, Los Angeles.
Discussion opened by Joseph King.
6. **INTESTINAL FLAGELLATES—A PLEA FOR THEIR PATHOGENICITY.**
JOHN V. BARROW, Los Angeles.

SURGICAL SECTION

1. BONE FORMATION AND BONE PATHOLOGY—LANTERN SLIDE DEMONSTRATION.

LEONARD W. ELY, San Francisco.

2. A CRITICAL ANALYSIS OF THE TREATMENT OF SIMPLE AND UNUNITED FRACTURES OF THE FEMORAL NECK.

ELLIS JONES, Los Angeles.

3. THE TREATMENT OF COMPOUND FRACTURE OF THE FEMUR WITH A DEMONSTRATION OF THE USE OF THE THOMAS SPLINT IN SUCH CASES.

C. W. ANDERSON, Los Angeles.

4. VOLKMANN'S PARALYSIS FOLLOWING WAR WOUNDS.

REXWALD BROWN, Santa Barbara.

5. GUNSHOT WOUND OF THE ABDOMEN.

REA SMITH, Los Angeles.

6. REHABILITATION OF CRIPPLES IN INDUSTRY.

PHILIP KING BROWN, San Francisco.

NEUROLOGICAL SECTION

1. WHEN A NEUROSIS BECOMES A HABIT.

MILTON B. LENNON, San Francisco.

2. SOME SURGICAL ASPECTS OF CORD TUMORS.

EMMETT RIXFORD, San Francisco.

3. EXPERIENCES WITH WAR NEUROSES.

THOMAS G. INMAN, San Francisco.

4. INCREASED SPINAL FLUID PRESSURE AS AN INDICATOR OF MENINGEAL DISEASE—PAST OR PRESENT.

HENRY G. MEHRTEENS, San Francisco.

5. THE DIVERGENT WASSERMANN.

RICHARD W. HARVEY, San Francisco.

OBSTETRICAL AND GYNECOLOGICAL SECTION

1. THE OBSTETRICAL SITUATION IN EUROPE.

TITIAN COFFEY, Los Angeles.

2. TUBERCULAR PERITONITIS AND ITS RELATION TO GYNECOLOGY.

W. O. HENRY, Los Angeles.

3. DERMOID CYST WITH MALIGNANT OVARIAN TUMOR.

ALFRED BAKER SPALDING, San Francisco.

4. PREGNANCY AFTER UTERINE SUSPENSION.

LUDWIG A. EMGE, San Francisco.

5. BRAIN SYMPTOMS IN TOXEMIA OF PREGNANCY.

JOHN A. SPERRY, San Francisco.

6. RECENT RESULTS IN THE USE OF DUCTLESS GLAND PREPARATION IN THE PRACTICE OF OBSTETRICS.

FREDERIC M. LOOMIS, Oakland.

Thursday Afternoon Session

2:00 o'clock.

MEDICAL SECTION

1. BORDERLINE TYPES OF SEBORRHOEIC DERMATITIS AND PSORIASIS.

MOSES SCHOLTZ, Los Angeles.

2. A SCHEMATIC METHOD FOR ESTIMATING THE HEALTH STATUS OF THE RUNABOUT CHILD.

C. EDGERTON CARTER, Los Angeles.

3. (TITLE NOT OBTAINED).

MAJOR JOHN R. McDILL.

4. THE SYSTEMIC EFFECTS OF LOW OXYGEN PRESSURE ON THE AVIATOR AS BROUGHT OUT BY THE HENDERSON RE-BREATHING APPARATUS.

LIEUT. JOHN R. KLEYLA, M. C., U.S.A.

5. VACCINE TREATMENT OF TYPHOID FEVER.

EDWARD VON ADELUNG, Oakland.

Discussion opened by Frederick P. Gay.

OBSTETRICAL AND GYNECOLOGICAL SECTION

1. COMPARISON OF THE END RESULTS IN INTERMEDIATE AND SECONDARY PERINEorrhaphies.

OLGA McNEILE, Los Angeles.

2. THE SPECIALTY OF OBSTETRICS; ITS PRESENT STATUS, IMPORTANCE AND POSSIBILITIES.

HENRY P. NEWMAN, San Diego.

3. THE PROBLEM OF UTERINE CANCER.

FRANK W. LYNCH, San Francisco.

NOTICE.

The Santa Barbara Society offers a cup to the winner in the golf contests arranged for the first two days of the State Convention. Play will be an eighteen hole handicap on the links of the Le Cumbre Country Club.

ROBERT W. HARTWELL,

Secretary.

PERSONNEL OF THE HOUSE OF DELEGATES FOR 1919.

DELEGATES.

L. P. Adams
Elmer E. Brinckerhoff
Chas. E. Dukes
*A. S. Kelly
Geo. G. Reinle
A. M. Smith
Dudley Smith
R. T. Stratton

*Deceased; place filled at meeting by an alternate.

ALTERNATES.

Alameda.

F. H. Bowles
G. Erwin Brinckerhoff
S. H. Buteau
Thos. J. Clark
Daniel Crosby
M. L. Emerson
Albert H. Rowe
W. H. Strietmann

Butte.

Edw. E. Banneister D. H. Moulton

Contra Costa.

W. E. Cunningham P. C. Campbell

Fresno.

W. W. Cross A. E. Anderson
A. B. Cowan

Glenn.

W. H. Walker Etta S. Lund

Kern.

F. A. Hamlin F. J. Gundry
George H. Buchner Jas. P. Hull

Lassen.

Plumas.

Fred J. Davis

Los Angeles.

Jos. M. King
Ellis W. Jones
A. H. Zeiler
F. M. Pottenger
A. B. Cecil
H. B. Ellis
Wm. Duffield
W. H. Kiger
E. E. Kelly
G. L. Cole
L. M. Powers
F. C. E. Mattison
Hill Hastings
F. L. Rogers
Leon J. Roth
Granville MacGowan
Edw. T. Dillon

W. W. Richardson
Guy Cochran
Lewis B. Morton
Chas. L. Bennett
Bernard Oettinger
Eleanor Seymour
C. S. Soiland
C. H. Criley
F. L. Anton
P. R. McArthur
Ralph Williams
I. J. O'Brien
F. A. Speik
A. S. Lobingier
H. W. Wilson
Alfred R. Rodgers
Mary Hagadorn

W. T. McArthur
Harlan Shoemaker
Geo. Kress
Lyle McNeile
Stanley P. Black
C. D. Lockwood
Rea Smith
Chas. Anderson
W. R. Molony

J. Lee Hagadorn
Edwin W. Earing
A. L. MacLeish
H. G. Brainard
C. E. Allen
P. O. Sundin
E. A. Newton
J. Mark Lacey
A. T. Charlton

L. L. Stanley

Marin.

A. H. Mays
H. O. Howitt

Mendocino.

F. G. Gunn

Monterey.

D. Baldwin Wylie

Orange.

H. A. Johnson
H. M. Robertson

R. A. Creshman
John L. Dryer

Placer.

E. E. Ostrom

H. N. Miner

Riverside.

John C. King
Lee M. Ryan

A. W. Walker
Bon C. Adams

Sacramento.

G. A. Spencer
F. F. Gundrum
G. Wilson

W. K. Lindsay
J. B. Harris
T. J. Cox

San Benito.

L. C. Hull

T. O. Nash

San Bernardino.

P. M. Savage
C. L. Curtiss

H. G. Hill
J. H. Evans

San Diego.

John C. Yates
Thos. O. Burger
Robert Pollock
P. M. Carrington

Chas. M. Fox
E. C. Mann
C. S. Owen
T. A. Parker

San Francisco.

W. C. Alvarez
W. W. Boardman
L. Eloesser
G. H. Evans
W. S. Franklin
H. P. Hill
H. C. McClenahan
H. Morrow
Wm. Ophuls
R. K. Smith
W. I. Terry
H. E. Alderson
P. K. Brown
F. B. Carpenter
W. B. Coffey

W. W. Wymore
W. C. Voorsanger
G. E. Ebright
H. W. Gibbons
J. H. Graves
Frank Hinman
H. C. Moffitt
E. Rixford
A. B. Spalding
V. G. Vecki

San Joaquin.

Barton J. Powell
Margaret Smyth
R. T. McGurk

W. J. Young
J. D. Dameron
F. P. Clark

San Luis Obispo.

Gifford L. Sobey

Ralph O. Dresser

San Mateo.

W. Chidester
J. L. Ross

F. S. Dolly
Geo. Sevenman

Santa Barbara.

Geo. R. Luton

L. R. Ryan

Santa Clara.

Edward Newell
Bert E. Loehr
H. J. B. Wright

A. E. Osborne
P. A. Jordan
William Simpson

Santa Cruz.

A. N. Nittler

W. F. Cothran

Shasta.

Ferdinand Stabel

C. E. Reed

Sonoma.

J. W. Scamell
J. W. Cline

F. O. Butler
F. O. Pryor

Stanislaus.

P. N. Jacobson
B. F. Surryhne

E. F. Reamer

Tuolumne.

E. T. Gould

Ventura.

W. B. Livingston

D. W. Molt

Yolo.

M. W. Ward

W. E. Bates

Immunity

The Journal will express no opinion of and assume no responsibility for the views of "Immunity" correspondents. They must win or lose on their own merits by abounding in their own wisdom, and each reader must appraise each communication for what it is worth and take it for better or worse.

AN ODOROUS SITUATION.

To the Editor:

Since your honorable Journal offers immunity to anybody who wants to knock in public, I will rid myself of a grievance which has rankled, and is rankling, in my bosom. Why should a city as large and fine as San Francisco, as rich and as patriotic, tolerate a garbage situation which stinks to high heaven? Why should San Franciscans be trodden underfoot by the Scavengers' Union and have their aesthetic pride and civic decency carried to the dump on malodorous garbage vans? Why does not the Department of Health, or the Police Department, or both together, take a hand in the matter, and insure decent garbage disposal? Why should scavengers be paid both by the city and by the householder, for a service that ought to be self-supporting? Is not garbage disposal a function of the health authorities? Again I ask, why?

Yours for modern health,

CITIZEN F.

Feb. 23, 1919.

Comment: Answers to these questions are left to readers

A JUST COMPLAINT FROM A WOMAN PHYSICIAN.

March 9, 1919.

To the Editor of the Journal:—The war is over. The days of accepting everything and of saying nothing are passed, but the day of reckoning is at hand. Lest the fires of our wrath become cooled, it seems fitting that we should express ourselves. What I should like to know is how the men of California, a free state, have stood for the treatment of the medical women by the War Department? When I think how patriotic they have felt when they have left their practices and gone to the front, many of them getting a salary such as they have never earned! But what have we done? We women physicians have been under fire in the front lines, in hospitals working day and night with bombs falling all around. We have given without a thought of a reward our everything to our country, our health, our wealth and, I might say, our hopes of happiness. I do say our hopes of a comfortable and peaceful old age. And what has been our return? We have been treated as nurses' aids,—neither fish nor fowl,—neither privates nor officers. We have worked side by side with the men, and by day and by night, in sickness and health, and for what reward? None from our grateful (?) government. Some perhaps from a sense of work well done. But what fools we women are. When I think of that fatuous turncoat at the head of the war department's medical office, kissing the ladies' hands on one side and handcuffing them on the other,—when I think of Dickinson of Brooklyn, who belongs to the dark ages, trying to prevent the women physicians from asking the senators to fight for their rights in Congress, and when I realize what an amazing pussy-footer Franklin Martin has proved himself, I am disgusted with any woman who has been so readily fooled, and then when I opened the A. M. A. Journal today and saw the death notice of Dr. Mary Walker who received a commission (vide the A. M. A.) as lieutenant in our Civil War in the early sixties, I marvel how we women have

progressed. A lieutenant in the sixties,—a nurses' aid in 1918. Save the mark.

But we shall not be fooled again. Let the men do the work. Let them be patriotic and let us stay at home and make money. Money brings comfort, aids happiness, and gathers much esteem. If we can't please God and Mammon, let us make friends with Mammon.

If the Government will have none of us, let us take care of ourselves and feather our nests while the men play the patriot's game and earn the rewards of their labors.

Wrathfully yours,
ONE WHO TRIED.

COUNTY MEDICAL MEETINGS.

To the Editor:—Your immunity column affords me an opportunity to make a few suggestions for the benefit of our County Medical Societies. From the expressions that I am constantly hearing from many physicians, some of our County Medical meetings should undergo a major operation and have a lot of fungous and useless matter cut out.

The Chairman of our program committee is such an affable gentleman that he is constitutionally unable to refuse anyone a place on the program. He would rather waste the night in words than wound anyone's feelings. As a result we are deluged with volunteer papers with no facts pertinent to living questions. Conditions are changing so rapidly that the past is receding more rapidly than ever, and the reading of long encyclopedic papers (mostly copied) with monotonous intonation does not tend to increase the attendance at our County Medical meetings. What the vigorous, up-to-date men of the profession are interested in and want to hear discussed are the questions of the hour. We are living in the present and treating the living of the present. We want information that will help us to do better work today and tomorrow.

In the county adjoining ours the County Medical meetings are so interesting that they are attracting the attendance of doctors from surrounding counties. I never fail to attend when it is possible, because their papers and discussions are brief and full of useful information on timely subjects. In splendid contrast to our Society, that will devote a whole evening to discussing a rare operation that occurs once in a cycle, our neighbor Society devotes its time to solving practical questions that frequently confront the busy doctor. Historical essays and endless and pointless reminiscences are more appropriate at an old settlers' gathering than at a live County Medical meeting that should be interested in the latest and best information that science has to offer.

At a recent meeting our neighbor Society had a symposium, and six different papers were read giving essential and useful facts on six different phases of an important question that perplexes many doctors daily. No paper consumed more than ten minutes. There was no loss of time or words.

Isn't it surprising how much some can say in ten minutes and how little others can say in an hour? I have often heard one of our prosy posers string out involved scientific terms for an hour and leave us all bewildered what it was all about.

If a County Medical Society would succeed in attracting and holding the interest of its members, it must serve its members by live programs, on live subjects for live men.

I am deeply interested in the improvement of our County Medical meetings as they should be the clearing house for the best available information. Their improvement means the advancement of us average doctors, it means our standards will be raised, our information increased and thereby we shall be better fitted to give better service.

Medical science is infinite and we never can get all of it, but through our Journals and Society discussions we can constantly add to our knowledge and keep abreast of the times.

Feb. 5, 1919.

Very truly yours,
SAN JOAQUIN VALLEY.

State Society

The State Society has stood the storm of the past two years very successfully. As an organization it might have been classed among the non-essential industries and the question might have arisen whether or not it was worth while to maintain such an organization during the war. We were prepared to meet the situation by extreme economies and still to maintain the essential nucleus of the organization, but circumstances have been such that the Society not only lived under the handicap of the war, but thrived. Our membership has not decreased and our finances are in better condition than ever.

Moreover, we have strengthened our position in many ways. The establishment of a collateral organization such as the League for the Conservation of Public Health is a distinct advance in medical organization. While this is not strictly speaking connected with the Medical Society of the State of California, its purposes and aims are an expression of the ungratified wish of the best element in our profession, and the same men who stand for the best in our Society are sponsors for the principles of the league. It serves a purpose which the Society itself could not do.

Owing to the cessation of military activities there will be no war tax during the coming year. It is a pleasure to be able to state that 1300 of our members responded to this taxation cheerfully and by means of this generous response we were able to carry our friends through the year with all the privileges and protection of the Society.

We are again called to a general conclave at Santa Barbara, and we hope that a good proportion of them will take advantage of this opportunity. We will all gain through the personal contact which comes at these meetings as well as by the scientific material presented. Make an early reservation at the Hotel Potter, which is now called the Hotel Belvedere, and get as much profit out of the event as possible.

County Societies

ALAMEDA COUNTY.

At the regular meeting of the Alameda County Medical Association, held February 17th, 1919, the following program was presented:

1. Proposed New Health Center of Alameda County. Miss Annie Florence Brown.
2. Recent Results in the Use of the Ductless Glands in Obstetrics. Dr. F. M. Loomis.
3. Some Impressions Gathered During My Five Months' Service in the United States Army. Dr. J. L. Lohse.

A vote of thanks was extended to Miss Brown and on motion of Dr. E. R. Sill the proposed Alameda County Public Health Center was endorsed by the Association.

Dr. Loomis' paper was discussed by Dr. Edith Brownsill and Dr. C. M. Page.

Dr. Lohse said in part:

The personal equation is a negligible factor in the Medical Corps. Professional ability and adaptability of the officer to the demands of the serv-

ice are the factors most potent in establishing his status. The shirker and half-hearted participant is side-tracked.

The many opportunities available for those who chose to take advantage and apply themselves.

Criticism should be withheld by those who had unpleasant assignments. That was their misfortune and was not by intent. Advantages for learning in the genito-urinary and medical services were especially great.

Empyema, one of the greatest of problems confronted by the surgeons. The efficiency of the Carrell Dakin treatment in doubt.

The doctor also found that co-operation between Regular and Reserve Corps men was close and effective.

He considers it a rare privilege to have served Uncle Sam during the crisis.

In the death of Dr. A. L. Cunningham, which occurred at his home March 3rd, 1919, after a lingering illness, the Alameda County Medical Association lost an esteemed and honored member. Besides his many friends, Dr. Cunningham leaves a widow and son to mourn his loss.

On Monday evening, March 10th, 1919, the Merritt Hospital Staff Council gave a dinner at the Hotel Oakland to welcome those members who sacrificed practice and responded to our country's call.

Dr. R. G. Brodrick, superintendent of the San Francisco county hospital and an expert in the building and administration of institutional hospitals, was appointed director of hospitals of Alameda County at a salary of \$7500 a year, effective March 10th. His work will be that of "a consultant and advisor to the architect."

The following appointments have been made to the Staff of the University of California Infirmary at Berkeley:

Dr. Luther M. Boyers of Berkeley is to be one of the physicians for men and Dr. Louise A. Oldenburg of Oakland is to be physician for women and anesthetist.

Dr. Leila J. Beebe of Mills College is doing half time service at the Infirmary of the University of California during the present semester.

Dr. Harriet Ward has opened a well babies' and well children's clinic which is open to the mothers and children of Berkeley on Tuesday and Friday mornings at nine o'clock.

New appointments to the staff of the Berkeley Dispensary: Dr. W. A. Clark, Dr. Luther M. Boyers, Dr. J. W. Calkins, Dr. Harriet Ward.

A communication received from Dr. Daniel Crosby, calls attention to the fact that this is a time of community service and that our association might well show that it too felt an impelling community spirit by extending a cordial welcome to those medical strangers who have come among us.

A motion by Dr. T. B. Holmes and seconded by Dr. Florence Sylvester, was carried authorizing the President to appoint a committee of five to act in accordance with Dr. Crosby's communication.

The Alameda County Health Center, the new central organization for all charitable and sociological work, has named Dr. Michael M. Davis of Boston as general adviser. Dr. Davis is director of the Boston Dispensary and an organizer of national reputation.

BUTTE COUNTY.

At the postponed annual election the following were elected officers of the Butte County Medical Society for 1919:

President, F. L. Hamilton, Chico; vice-president, Thos. B. Reardon, Oroville; secretary-treasurer, J. O. Chiapella, Chico; board of censors, C. L. Brewning, D. H. Moulton, E. E. Baumeister, Chico.

KERN COUNTY.

At the annual meeting of the Kern County Medical Society the following officers were elected for the ensuing year:

Dr. F. A. Hamlin, president; Dr. S. F. Smith, vice-president; Dr. C. S. Compton, secretary and treasurer; Dr. F. A. Hamlin and Dr. Geo. Buchner, delegates to the Medical Convention; Dr. James Hull and Dr. F. J. Gundry, alternates.

Recent meetings have been full of pep; live papers, good discussions, with presentation of extremely interesting cases; feed and smoker follow the meetings, the last being held at the St. Francis cafe.

A special meeting was recently held to listen to Dr. Henry Harrower, of Glendale, who gave an enthusiastic talk on endocrine glands.

Committees have been appointed to have charge of each meeting during the year and are held responsible for the success of their own evening.

LOS ANGELES COUNTY.

"Flu" Situation.

The influenza epidemic is at its lowest point since the outbreak of the epidemic. The situation calls for renewed vigilance if a recurrence of the epidemic is to be avoided, says a resolution adopted by the Business Men's Advisory Committee at a meeting with Health Commissioner Powers.

Dr. Powers was congratulated by the committee on the effectiveness of the measures now being employed to fight the epidemic. He said that although it is likely that the epidemic may show a temporary "revival" before spring, there is every reason to hope that with proper co-operation on the part of the public, there will be no repetition of the experiences that followed the holidays.

"It must be remembered that no health department can do effective work in controlling an epidemic unless the department has information as to the existence of cases," said Dr. Powers. "For this reason the department will initiate the prosecution of physicians and householders who fail to report cases of influenza and pneumonia. Under existing law, physicians are required to post placards as soon as a case of influenza is noted and also report the case immediately to the health department."

Influenza conditions at San Pedro and Wilmington have improved with the rest of the city, according to Dr. Powers, who has completed an inspection in the harbor district.

M. W. Kimmick, chief quarantine inspector, announced that two more convictions have been obtained before Police Judge Crawford for breaking quarantine.

Personals.

Dr. C. G. Toland has returned home after service in the Army which took him across the continent and back. He was first at the Letterman Hospital, San Francisco. Then he was sent to Allentown, Pa., and from there to Camp Dix, N. J., after which he returned to the Pacific Coast and was stationed at Camp Fremont.

Receiving a dispatch yesterday that her son, Lieut. Edward R. Brainerd, Jr., is dangerously ill at Camp Zachary Taylor, Louisville, Ky., Mrs. E. R. Brainerd, State chairman of the Woman's Liberty Loan Committee, took the first train for the East. Lieut. Brainerd is said to be suffering from pneumonia. He is 27 years old, single, and a graduate of Harvard College. He is the only son of Dr. and Mrs. Brainerd.

Dr. John Ferbert returned home from fifteen months' service overseas with Navy Base Hospital, No. 3. He will live at the California Club, his former home. California, Dr. Ferbert declared, will be the home of a number of Army and Navy men of long standing, who are now preparing to return to civilian life.

Dr. Carlton S. Allen, recently lieutenant in command of Ambulance Company 278 at Camp Sevier, Greenville, S. C., has returned to Los Angeles to resume his practice. Dr. Allen had been assistant surgeon of the Los Angeles Railway Company for more than six years when he enlisted and was sent to Washington, D. C., last April. Later he was transferred to the southern camp and placed in command of the ambulance company, part of the Twentieth Division. This division was planning to embark for overseas when the armistice was signed.

Pure Milk.

The Building Industries Association has issued a statement backing Health Commissioner Powers in his controversy with certain milk dealers of the city. The statement says in part: "It is, at all times, the desire of our members that the laws of the city be rigidly complied with, and in the present controversy, we heartily give our full support to the City Health Commissioner, in procuring for the people of Los Angeles good, pure milk, produced and delivered under thoroughly sanitary conditions, and that any offender be prosecuted and publicity of such action be given."

The department has received a number of calls from citizens inquiring as to the conditions in general of the milk supply. "The fact that two firms are being prosecuted for violation of the milk laws does not mean the public should be alarmed," said Commissioner Powers. "The milk being supplied to Los Angeles is, I am sure, better than that supplied to any other city of similar size. The people here are receiving good, pure milk."

Efforts of Health Commissioner Powers to provide pure and clean milk for the people of Los Angeles have been officially commended by the Executive Committee of the Los Angeles Federation of Parent-Teacher Associations, according to a statement issued yesterday. The organization has nearly 10,000 members.

School Physician.

To give free consultations and medical advice to women students of the University of Southern California, Dr. Muriel Cass has been appointed resident physician of the institution. She will maintain office hours in the building devoted to the work of the dean of women, Mrs. Maryette Mackey. Dr. Cass will also give a course of lectures on emergency treatment to freshmen, and will conduct physical examinations for the women's athletic department.

Supervisors Asked To Admit Colored Girls to County Hospital.

A letter from E. Burton Ceruti, chairman of the Associated Committees, to the Board of Supervisors, requesting the Board to revoke the order of January 8, suspending the enforcement of the resolution admitting colored girls as student nurses in the County Hospital, is expected to bring the matter to a head. The Supervisors suspended the order when the influenza became epidemic. The "flu" has abated so that Attorney Ceruti believes no reason exists why the five colored applicants should not be admitted to the nurses' staff. The Supervisors took the matter under advisement.

The resolution was adopted by the former board on July 17, 1918, when three members were planning for re-election. The board was unanimously in favor of the resolution. Supt. Martin of the County Hospital also was strongly in favor of admitting the colored girls. The white nurses, however, served notice that they would strike. This was smoothed over while the war was in progress.

Dr. John S. Roome Passes.

Dr. John S. Roome, for a number of years a member of the Iowa State Legislature, died Feb-

ruary 7, at his home, 4915 South Normandie avenue, of hardening of the arteries. Dr. Roome was 80 years old, and had been in California with his wife for about eight years.

He was a graduate of the University of California, Los Angeles Medical Dept., taking his degree June 20, 1912; licensed August 28, 1912; a member of the Los Angeles County Medical Association.

In Iowa he practiced medicine for over fifty years, and was regarded as one of the State's medical authorities. About ten years ago his health failed and he retired, coming to Los Angeles. He was a Mason and a Knight Templar. He leaves, besides the widow, a son, Sidney Roome, of this city, and two daughters, Mrs. Arthur Martin of Medalia, Minn., and Mrs. William Rinkel of St. Peter, Minn. Burial will be in Inglewood Cemetery.

Death Claims Doctor. Former President of Illinois State Medical Society Dies Here.

Dr. James M. G. Carter, formerly president of the Illinois State Medical Society and a member of the faculty of the College of Physicians and Surgeons of Chicago, died at his home, 976 North Western avenue, last night.

He was a graduate of the Chicago Medical College, Illinois, taking his degree March 20, 1880; licensed December 20, 1912; formerly a member of the Los Angeles County Medical Association.

Dr. Carter was one of the best known physicians in Illinois, where he was born in 1843. He was a veteran of the Civil War and marched with Sherman to the sea. In addition to being prominent in the medical profession, Dr. Carter was a member of the Masons and was well known fraternally.

He leaves a widow, two daughters, Mrs. Goodel Sherman and Mrs. Helen C. Sexton of Los Angeles; a son, William Northrop Carter of Joliet, Ill., and a brother, Dr. R. M. Carter of Los Angeles. Date and arrangements for the funeral will be announced later.

William Makepiece Roads, M.D., of Los Angeles, aged 57, died at his home, January 10, 1919. He was a graduate of the Medical College of Ohio, Cincinnati, in 1887, and was for many years a practitioner of Cincinnati.

County Medical Association Meeting, February 6, 1919.

The President, Dr. W. T. McArthur, presided, introducing the speakers of the program.

"Eczema in Breast-Fed Infants; Diagnosis and Treatment," by Anstruther Davidson, C.M., M.D.

Dr. W. W. Richardson spoke on "War Surgery" and Dr. P. V. K. Johnson on "Children of Bordeaux."

February 20. The second monthly meeting was held at the same place and time.

Dr. Donald C. Balfour of the Mayo Clinic, Rochester, Minn., spoke on "Observations on Surgery of Gastric Ulcer."

Dr. Donald J. Frick had for his subject "Pneumonia and Empyema Complicating Spanish Influenza."

"Evacuation Hospitals in France During the Battle of Argonne," by Dr. Rea Smith, concluded the program.

ORANGE COUNTY.

The March meeting of the Orange County Medical Society was held at the County Hospital, by invitation of Dr. Zaiser the Superintendent.

The meeting was a clinical one and many patients were exhibited to the society. The program consisted of clinical lectures, by members of the society, as follows:

Dr. H. A. Johnston of Anaheim, Chronic Hyper-

trophic arthritis, with the presentation of a case affecting one knee joint.

Dr. J. M. Burlew of Santa Ana, Skin Grafting, Its History, Methods, and the presentation of a case where the whole side of the face had been covered with Thiersch grafts with an excellent cosmetic result.

Dr. J. C. Crawford of Orange, Blood Pressure, Its Significance, and the presentation of a case of high blood pressure complicating morphinism.

Dr. J. P. Boyd of Santa Ana, Tabes Dorsalis, with the presentation of two cases.

Dr. J. A. Jackson of Anaheim outlined the history and presented roentgenograms of an interesting case of cardiospasm.

At the close of the meeting Mrs. Zaiser assisted by Miss Swall and the nurses of the Hospital served refreshments.

It is hoped by many members of the Society that arrangements can be made whereby the regular meetings may be held at the County Hospital.

Dr. A. E. Elliott and Dr. Frances P. Elliott have opened offices in the Spurgeon Building at Santa Ana. Dr. Elliott is a late arrival from El Centro, Calif.

Lieut. J. McAuley has resumed practice in Santa Ana.

Dr. D. C. Balfour of the Mayo Clinic spent a few days with friends at Anaheim.

SAN FRANCISCO COUNTY.

A MEMORIAL ORATION.

Delivered by Doctor James T. Watkins at the Annual Meeting of the San Francisco County Medical Society, January 14, 1919.

There is infinite pathos in the way in which man, from the beginning of recorded time, has striven to reach across the void of Death to those who have gone before him into the Valley of the Shadow. From the prehistoric mound-builder, who buried with his dead household utensils and implements of the chase, still priceless to the survivor, down through the ages and succeeding civilizations even to the Hindus practising Suttee in the middle of the past century, we behold the eagerness of man to sacrifice possessions and even life, in the hope that by so doing he may make smooth the way of his beloved Dead.

In a sense Death is for man the line of cleavage between the finite—the world of three dimensions (of length, of breadth and of thickness) and the infinite—that world, the definition of which implies at least a fourth dimension, namely infinity. Some silly souls, being puffed up with vanity, do occasionally attempt to estimate that other world of four or more dimensions in terms of this world of three dimensions—which is manifest folly. Like the Persian Omar, they

"evermore come out by that same door,
wherein they went."

By one, and only one attribute, quality, possession—*al*: it what you will—can man span the gulf which separates him from his departed—and that attribute is Love.

Neither things visible nor things invisible; neither time nor space; neither Chronos nor Cosmos, in themselves infinite, can prevent us from communing, through Love, with our Beloved Dead.

Born in a material generation, most of us are sustained by no definite faith; and yet despite our spiritual feebleness, and often our unfaith, all of us who have lost loved ones, as we go down the years, feel a chord within us vibrate in harmony when we recall those inspired words of a Prince of the Roman Church

"And with the morn those angel faces
smile

Which I have loved long since, and lost
awhile."

On the victorious battlefield of Port Arthur, the hero-warrior of Japan, General Nogi, erected an altar and upon it burned incense, according to the Shinto rites, to the souls of his soldiers and of his enemies, apologizing to them because, through his unworthiness, he had not been able to accomplish his work except through their deaths.

And so—once a year we, as a Society, cannot do better and should not do less than recall those of our fellowship who have, during the year, gone from among us, building an altar, at least of the spirit, to their memories, and as incense upon it, recalling those good qualities which made them dear to us and valuable to society.

We are a short-lived profession. Of us truly may it be said "Behold, Thou hast made my days as it were a span long. They fade away suddenly like the grass." Of the eleven who have gone from among us only one had attained to the "three score years and ten" of the Psalmist. Of the rest, three had passed sixty years, two had passed fifty, two had passed forty, and three had passed thirty years.

(Here Dr. Watkins called the roll.)

1. Ben Swan.
2. Robert A. Maclean.
3. Gerald Fitzgibbon.
4. Dudley Tait.
5. Martin Krotozyner.
6. Walter Johnson.
7. Fayette Birtch.
8. Joseph E. Artigues.
9. Arthur E. Buell.
10. W. A. Harvey.
11. Shadworth Beasley.

None answers!! All, all are gone!

Let us pause and bear witness to the good which has come to us through knowing these men.

Ben Swan, P. & S. New York, 1868.

Sir, your professional activities were largely those of a previous generation. Our most vivid impression of you, Ben, is one of kindness. Of a broad and catholic charity toward your fellow men, you loved your kind. They saw that you did—and loved you. We feel that in your sleep you are smiling still, Ben Swan.

Robert A. Maclean, California, 1874.

Sometime Professor of Surgery; a brilliant operator. We of this generation, Sir, shall find courage to meet the vicissitudes of Fate in a better spirit because of the truly heroic example you set us. For many years you bore appalling bodily affliction unflinchingly, dragging the dead half of you about without asking any man's sympathy, while you continued the practice of your profession.

Gerald Fitzgibbon.

With you, Sir, Ethics was a religion, and Courtesy a fine art. Happy indeed the man who might call you Friend!

Dudley Tait, University of Paris, '88.

This Society is under very real obligations to you, Dudley Tait. You did work which had to be done in building the medical law of this State, but which I doubt if any other one man could have been found to do.

You desired greatly the goodwill of your fellow men, but when you had undertaken what you deemed to be your duty, neither your financial interests nor your professional advantage nor your personal relations could deter you from the full accomplishment of your purpose.

Martin Krotozyner.

To those of us who knew you as a distinguished urologist, you, Martin, were an inspiration. To those who walked with you in the country or in the night watches, your conversation was as delightful as it was varied. To those whose privilege it was to observe you as friend, as father,

and as husband, you must ever remain a pattern and example. We shall miss you, Martin.

Walter S. Johnson.

One smiles when one thinks of you, dear little Johnson. It is the answering one to that kindlier smile with which you always greeted us. Easy-going, happy-go-lucky, gregarious—there was still a bed-rock of altruistic patriotism to your character. Yourself a veteran of the Spanish war, you saw at the outset of this one the immediate need of a Medical Officers' Reserve Corps, and, seeing that need, you set aside every other consideration in order that you might give your time to making it a fact. General Edie said to me personally that "no man had done more to create a Medical Officers' Reserve Corps in this district than little Johnson."

You were one of that grand army who died that civilization and the principles of humanity might live.

Fayette Watt Birtch.

More than any man I have ever known yours was the example of a man who set the advancement of his profession—not of himself in his profession—before every earthly consideration.

Out of your unremitting industry and readiness to forego the tangible rewards of that industry, a group of ordinary men—myself among them—found the inspiration to make the only extraordinary advance in scientific medicine which has come from this community.

The Group Method of Diagnosis, in comparison with which other methods appear biased and incomplete, is the result of your labors and shall be your everlasting monument.

Joseph Emil Artigues.

Beloved of the French Colony.

William E. Buell.

Efficient, quiet, unassuming.

W. A. Harvey.

Cut off all too early at the beginning of a brilliant career.

Dear Friends, we were "bound too tightly to the wheel of things" to know you as we would like to have done. We knew you as just men, and as such we bid you Godspeed.

Shadworth Beasley.

Born an Englishman, a naturalized American, rabidly proud of his adopted country, a graduate from Cooper College in 1897. He was wounded in the Spanish war while carrying out the wounded under fire. He received the Congressional Medal for bravery.

Before America entered the world war, he went with the Red Cross Relief Expedition to Serbia, and served through the hideous typhus epidemic in that unhappy country. Later he went to the front with the American Expeditionary Forces. Again he was cited for gallantry. If Beasley was proud of his adopted country, what words can depict America's pride in her adopted son! And finally, on October fourteenth, his fate befell him. Enemy airplanes were bombing his hospital, and Beasley began carrying out the wounded. And then, a German dropped a bomb on him, and Shadworth Beasley, still carrying his wounded, entered into the presence of his God.

(The Chairman then called on the Society to rise in token of respect for the departed.)

Dr. Watkins continued:

And now, O souls of our departed Fellows, if, "seeing through a glass darkly," we have at any time misjudged you—forgive us. If, being human, you have at any time misjudged us—let it be forgotten. You have each, according to your lights, fought the good fight throughout the heat and burden of the day. At last the day is done. Now you rest.

Strong fighters in the armies of humanity—Friends, Colleagues—Farewell!

Department of Pharmacy and Chemistry

Edited by FELIX LENGFELD, Ph. D.

Help the propaganda for reform by prescribing official preparations. The committees of the U. S. P. and N. F. are chosen from the very best therapeutists, pharmacologists, pharmacognosists and pharmacists. The formulae are carefully worked out and the products tested in scientifically equipped laboratories under the very best conditions. Is it not plausible to assume that these preparations are, at least, as good as those evolved with far inferior facilities by the mercenary nostrum maker who claims all the law will allow?

During the influenza epidemic thousands were vaccinated with all kinds of vaccine. Practically all State Boards of Health as well as the Federal Public Health Service seem to consider vaccination useless either as a prophylactic or cure. On the other hand, many practicing physicians think it did some good. As there is no laboratory test for influenza, the question is purely one of statistics and interpretation of statistics. It is not a simple question but it can be solved and its solution is of vital importance. It is not impossible that some makers of vaccines have made false or exaggerated statements. If so, they should be compelled to retract and to give wide publicity to their retraction. The Council of Pharmacy and Chemistry find fault with the Cutter Laboratory for publishing a statement to the effect that over 700 people were completely immunized in one series and seem to think that this means nothing. The statement of the Cutter Laboratory is as follows (One of San Francisco's leading physicians made the following statement during the height of the influenza epidemic):

"I have used between 700 and 800 doses of the Cutter Laboratory's Mixed Vaccine—Respiratory Infections as a prophylactic against influenza, and in not one instance has there been a failure completely to protect the individuals so immunized."

It will be seen that this is rather ambiguous. It may mean that of over 700 people treated by this physician at the beginning of the epidemic, all escaped. If this were true there would remain little doubt regarding the efficacy of this vaccine as used by this physician. Of course, it might be a mere coincidence as it would be if one were to select at random seven or eight names from the city directory and find that each belonged to a man with blue eyes and a wooden leg. Assuming that one in ten of the people had influenza, the probability in both cases would be of about the same order of magnitude. Even if the 700 were vaccinated at any time during the first wave and escaped completely during the second, the probability of a coincidence would be one in millions.

Even if the published statement means that over 700 doses were given, i. e. about 250 people inoculated and that all escaped, it deserves attention.

Another statement has been made to the effect that eighty nurses in a large San Francisco hospital were given their option as to vaccination, sixty-four chose vaccination and not one had the disease. All of the sixteen not vaccinated had influenza and ten died.

There is also in circulation a letter from the Board of Health of an interior California city to the effect that about 1500 people were vaccinated and only one died.

These statements are either true or false. If true, they certainly show that vaccination under certain conditions is thoroughly efficacious. If false, their falsity should be shown at once. We may have another wave of influenza at any time and both the public and the physician have a right to know all that can be known about the prophylaxis and cure of this disease. It seems

as if there should be some organization that would investigate these cases thoroughly and report the truth without pride or prejudice. The matter is too important to remain an open question through commercial greed or official conservatism.

State Board of Health

USES OF BIRTH CERTIFICATES.

Among the commercial uses of birth certificates in the State of California, the following are the most common:

1. In Probate Courts as proof of age and legitimacy of heirs. This is probably one of the most important legal uses of a birth certificate.

2. In Criminal Courts:

(a) To determine whether a minor defendant shall be tried in the Juvenile Court or in the Criminal Department of the Superior Court.

(b) As proof of age of the complainant in case of rape.

(c) As proof of birth in bastardy proceedings.

3. In Civil Courts:

(a) As proof of age in order to determine the validity of a contract entered into by an alleged minor.

(b) To determine the liability of a parent for the debts of a minor.

(c) In accident cases to determine the age of persons injured when the casualty company carrying the risk sets up the defense that the injured was under the age of persons permitted in their contract with the defendant to operate machinery.

4. Miscellaneous Uses.

(a) To settle disputes as to age arising out of insurance claims.

(b) As evidence upon which to correct a record of marriage or of death, particularly as to age.

(c) As evidence of legal age in order to obtain a marriage license.

(d) As evidence of age in order to enlist in the army or navy.

(e) As evidence of under age in order to obtain the discharge from the army or navy of boys who have enlisted without their parents' consent.

(f) As evidence of school age to gain admission to school.

(g) As evidence that a child is over 14 years of age and, therefore, does not require a permit to work.

(h) As evidence of the required age in order to obtain vacation employment certificates between the ages of 12 and 15.

(i) As evidence of age and citizenship in order to obtain entrance to civil service examinations.

(j) As proof of citizenship in order to vote.

(k) As proof of citizenship in order to obtain a passport. This last need of a birth certificate has been forcibly brought home to us during the present European war by accounts brought to us of hardships and dangers suffered by many Americans because of the failure of medical attendants to record their births.

(l) The Widows' Pension Law, which was enacted some years ago.

5. In health administration, birth returns, in addition to their statistical value, are almost indispensable in infant welfare work since they enable the health officer to get in touch with the mothers of infants within the first few weeks of life for the purpose of instructing and aiding her in the care of her child.

Industrial Medicine

LABOR MAXIMS.

By PROFESSOR S. N. PATTEN.¹

Prof. S. M. Patten enunciates a set of Labor Maxims which deserve study:

1. The working day shall be limited to eight hours, the week to forty-four hours and each year shall contain a two weeks' holiday with full pay.

2. The expense of displacing causes which injure laborers or reduce their vitality shall be regarded as legitimate costs to be borne by each industry.

3. All attained standards shall be regarded inviolate.

4. Laborers shall favor industrial improvements and share in their advantages equally with employers.

5. When labor is displaced by improvements this labor shall be compensated for its loss out of the profit arising from the improvement. When this cannot be measured the burden shall be accepted by the state and paid for out of the general surplus of society.

6. All health regulations affecting the workers shall be regarded as public charges if their causes lie beyond the control of specific industries.

7. Where the work of an industry incapacitates or reduces the efficiency of the worker before sixty, his support is a legitimate charge on industry until that age is reached.

8. One thousand dollars shall be regarded as the minimum standard necessary to provide for the support of a family. Where superior efficiency is demanded in any occupation, sufficient additional remuneration shall be given to evoke the needed skill.

9. Workers shall not demand the control of the industries in which they work but they must have the right of collective action and of collective decision. They are entitled to all the facts which bear on wages, costs, prices and on industrial effectiveness. When these facts are given no publicity shall follow unless the management and the workers fail to agree as to the policies involved.

10. Workers shall control the conditions of membership in their unions, but these regulations shall conform to public interest and be subject to public revision.

11. The education of children shall continue until the completion of their eighteenth year before which age they shall be excluded from industry except as part-time apprentices subject to the rules of the union concerned and of the educational authorities.

12. Every industry shall supply continuation schools in which the worker may attain the maximum efficiency of his occupation.

13. Where women and men do the same work their pay shall be the same. If women are excluded from suitable occupations, corresponding occupations shall be reserved for them subject to such regulations as their health and public welfare demand.

14. All industrial occupations shall be conducted on the ground floor and each plant so isolated that the worker may have a home of his own. Industrial plants shall be at the perimeter and not in the center of each town. The zoning of cities for this end shall be enforced by public regulation.

15. No taxes shall be laid on the food of workers nor shall special taxes be placed on their clothing or on housing material.

16. Organized labor favors cooperation with associations striving to promote public welfare and

¹ Ann. Amer. Acad. of Polit. and Social Sci., March, 1919.

stands ready to do its part to make this larger unification effective.

It is to be noted that maxims 1, 2, 6, 7, 8, 11, 13, 14 and 16, that is, 9 out of 16, are concerned with the health of workers and affect subjects in which the physician is professionally concerned. How much do you know about these specific points? Here is the opportunity for the medical profession to do an incalculable service to labor, by studying these conditions and securing their benefits for the worker. The physician best of all men, is fitted to advise and direct in these lines.

CONFERENCE ON REHABILITATION.

A conference on the rehabilitation of the disabled was held in New York City from March 18 to March 22 inclusive. It promised results of unusual value. It was international in its representation and the scope of subjects discussed, and had a special interest for the medical profession, and for all those who play a part in the restoration of the disabled to the best possible physical condition.

The experience of America and that of the allied governments in occupational therapy, functional restoration, the fitting of artificial limbs, compensation, vocational re-education, and kindred subjects, was reported upon by experts in those fields. The conference was held under the auspices of the Red Cross Institute for Crippled and Disabled Men, and that part of the program related to the work for blinded soldiers was directed by the Red Cross Institute for the Blind.

Representatives of practically all the governmental agencies in the allied countries dealing with disabled soldiers were in attendance. Among the authorities represented were the British Ministry of Pensions, the French National Institute for War Cripples, the Belgian Military Institute for Crippled Soldiers, the Italian Ministry of Pensions, the Canadian Invalided Soldiers Commission, the Australian Department of Repatriation, and the Bureau of Re-education and Reconstruction of the American Red Cross in Paris, in addition to other individual organizations in the respective countries.

Among the authorities in the United States were the Federal Board for Vocational Education, which is providing for American disabled soldiers training for self-support; the Division of Physical Reconstruction of the Office of the Surgeon-General of the Army, which is providing restorative treatment and education during the convalescent period; the Bureau of War Risk Insurance, which furnishes artificial limbs to amputated soldiers of the American Expeditionary Force, and pays disability compensation; and the American Red Cross Department of Civilian Relief, which, through its home service section, provides social after-care for disabled men.

The gathering was unofficial in the governmental sense, but scientifically of great authority, as many of the leaders in rehabilitation work abroad came to the United States for the first time to attend its sessions. Their presence here will afford opportunity to American workers in the same field to draw upon the experience of the foreign delegates for the solution of local problems.

While activities in behalf of the disabled soldier figured largely in the program of both popular and scientific sessions, the interests of the disabled industrial worker came in for a considerable share of attention. The invitations to the conference designated it as a "conference on the rehabilitation of the disabled man," civilian as well as military. Although the concentration of interest on the injured soldier has been responsible for the revolutionary change in national policies toward the disabled—whereby chief dependence is placed no longer on pensions but rather on the training of men to earn their own living—it is being gen-

erally recognized that many more men are disabled annually in industry than have been incapacitated by military service. It is the present aim of authorities having an interest in the cripple in general to apply to the treatment of the disabled civilian the same methods as have been developed to meet the needs of the invalided soldier.

One of the aims of the conference was to direct public attention to the economy of putting disabled men back on the pay roll rather than permitting them to exist in idleness, supported by war pension or workmen's compensation.

The plans of the various allied governments for the supply of artificial limbs to amputated soldiers, was one of the subjects slated for consideration, including the advantages of the adoption of a standard type of leg and arm.

WAR INFLUENCE UPON EDUCATION.¹

A country can not go through two years of war and not come out of it with new visions, new viewpoints, and new responsibilities. When the draft took men from the industries and offices there came from the employers a general demand for workmen. The question of sex was hardly material. The main problem was that of proper education and training. To put untrained workers in the positions meant to lower the efficiency. Public sentiment had crystallized into a demand for an educational system which would fit men and women for industrial and business life.

Simultaneously with the employer's needs became apparent those of the workers themselves. Many were forced to earn a living who had never anticipated such a course and found themselves utterly unfitted and unprepared to take hold. Many who were already working faced opportunities for advancement which they could not grasp on account of their lack of training.

Out of the ashes of war one other class arose—the soldiers and sailors who have been disabled and can not return to their old occupations. Men who had done work requiring great strength have contracted tuberculosis in the camps or trenches, and can never again reenter the same position. Men who had worked in the midst of great noise and strain are suffering from shell shock; wounds in the chest, stomach, or back have weakened constitutions and unfitted the men as much as the more noticeable wounds of war for their old life. These men are the same who went over there with the determination to win, and they are not content to be laid on the shelf to rust.

To fit these demands of the employers for trained workers with the demands of the people for more training and retraining is the work of the Federal Board.

Anticipating and meeting the peace-time needs for more practical instruction, the Federal Board for Vocational Education was established by Congress in 1917. A few facts from the reports of the year ending June 30, 1918, show how the work is growing and taking part in the progress of education. One thousand seven hundred and forty-one schools in the United States are conducting vocational courses at this time. These include schools in every state. In some of these schools not only are boys and girls being taught practical lessons, but teachers themselves are being trained to teach vocational subjects, and 6,579 of these are enrolled in the classes. This, in itself, spells efficiency. From the number of students in these vocational classes employers of the future may expect 164,186 trained workers a year, provided all those enrolled continue. The aggregate undoubtedly will increase as time goes on. Agricultural, commercial, industrial, and home economics education is being studied and planned. These plans are put into execution in such a satisfactory way that the vocations of manual

¹ From Vocational Summary.

labor are becoming professions themselves. To be thoroughly equipped and trained in any line of work is to become a master in it.

The work of reeducation, because of its timeliness and its more direct appeal, has engaged the interest of the whole country. Here and there small societies are considering the idea of helping disabled men of some special class to be retained, while steadily and effectively the Government of the United States has set in motion a great machine of trained workers and vocational advisers to confer with the man; fit an occupation to his disability; send him to the proper educational institution where the training he needs may be obtained. The Federal Board pays for tuition, laboratory, library, matriculation, or such other expenses and gives him, if he is a single man, a minimum of \$65 per month, or a sum equal to that of his last month's pay in the service, as a support allowance; with support for his dependents while he is taking training. Nor does it leave him stranded with a training and no job. The Board keeps in touch with him and if it is a wage-earning occupation he is fitting for, obtains him a job, where he has a chance to make good.

It is estimated that there will be thousands of men who will need retraining.

The greatest percentage of these will not be amputation cases, but disabilities which will require as much if not more readjustment in a man's way of living. It is no more remarkable or necessary for a man who has lost his arm or leg to be retrained than for one who has tuberculosis. It is more spectacular; and these are the men the world would consider cripples. A cripple is a man who has lost an arm or leg or part of one or the other; but when he lost this and has gained a higher view of life and a greater efficiency, he is no longer a cripple. Only two per cent. of the men disabled in war will be too handicapped to take up life again as a part of the great scheme. There is hardly a disability which has not some job to fit it. From the men who have already returned to this country 12,000 have been in contact with the Federal Board. Some of these men are still in hospitals and are considering what they desire to take up on their discharge. Three per cent. of them are now in training for various vocations; agriculture, telegraphy, designing, tailoring, dairying, medicine, law, banking, and engineering are some of the courses which they have decided to follow.

This vocational retraining has its share in the problems before the country to-day. After every other war the industrial market has been flooded with inefficient veterans holding jobs which are narcotics to their sleeping ambitions. Vocational retraining is not a narcotic, but a prod. There are still campaigns for the returned soldier. The Nation has use of him in her future progress.

TELL HIM HE HAS A JOB.

The rapid demobilization of returning troops, the change from a war time program to a peace basis of the industrial factors of the country has brought about a condition of affairs that demands immediate relief.

Labor statistics from all over the United States show congestions of the unemployed in widely scattered districts, but particularly adjacent to ports of debarkation, notably New York City, where many demobilized men have remained instead of returning to their various points of enlistment.

The ready patriotism of employers has unwittingly added to the difficulties of the situation, especially on the eastern seaboard, where the "welcome home" has taken substantial form in the offer of every available position to returning soldiers, sailors and marines.

Most of the returning units so far have been

from other parts of the country and the current month finds us with a superabundance of labor on the eastern seaboard, practically all positions filled and units from the eastern districts just returning, to find the positions already occupied by men from other sections.

Every effort has been made to relieve the congestion, re-district the men and render labor conditions more fluid.

The United States Department of Labor, which has charge of the labor problem as it relates to the discharged fighting man, has established branches of the United States Employment Service all over the country in order to help soldiers and sailors readjust themselves to civil life.

In its capacity of offering emergency aid to the families of enlisted men the Home Service Sections of the American Red Cross have come closely in touch with these problems and have been able to relieve the situation to some extent both through their own assistance and through co-operation with other agencies.

Men who are in need of legal advice, medical attention, food, clothing, etc., are cared for. Nothing is left undone to enable the men to get back to work and the Home Service Section will stick by them until they find a suitable job. Men are encouraged to go to their home towns rather than settling down in large cities at points of debarkation.

Wherever it seems desirable to do so the Red Cross also gets into communication with the man's home town and secures all possible information regarding labor conditions at that point, returning him there or to the nearest adjacent point where he can secure proper employment. Many men have been transferred through this medium from congested districts to places where work abounded, but this continual debarkation and demobilization in such large numbers rapidly congests every known means of relief.

The next two or three months will be the period of the greatest stress. Many men, worn and nerve racked from the strain of trench life and used to the open, will welcome the always available opportunity for farm life, but farming will not open up, particularly in the North and West, for another thirty to sixty days.

Farming communities, particularly in the corn belt, will absorb a large number during the later spring months and will offer a wholesome environment, but jobs must be had NOW before the peak of the difficulty has been reached and the next ninety days will see the crisis of the situation.

Many solutions have been suggested as a measure of relief and it has been strongly urged that in all communities where local improvements are contemplated in the near future that the plans be rushed so that work can be commenced at the earliest possible moment. Building operations should be hastened to take up this surplus labor, roads in many parts of the country need immediate attention and factory renovations might in many cases be undertaken at this time—construction of all kinds has been impeded by lack of suitable workmen. Let every manufacturer and employer of labor give an introspective look into home conditions and advance his plans as much as possible to offer immediate relief before the situation becomes more serious.

In view of these facts the Red Cross urges employers of labor and community interests everywhere not only to prepare but to take upon themselves the special duty of urging their communities to prepare for the return of the demobilized man and to place in the hands of the authorized authorities for their district all positions that are open to returning members of the A. E. F.

Labor reports show an enormous surplus of unemployed in over 150 large cities in all parts of the country, with an ever increasing ratio. What will you do toward remedying the difficulty if the Red Cross gets the man back to his home town?

Dr. Farrand Appointed Head of Red Cross

Dr. Livingston Farrand, President of the University of Colorado, has been appointed by President Wilson as Chairman of the Central Committee of the American Red Cross, to succeed William H. Taft.

As Chairman of the Central Committee, Dr. Farrand will become the executive head of the National Red Cross organization on the retirement of the War Council, which will take place March 1.

In changing the Red Cross from a war to a peace basis far greater tasks will be involved than those undertaken during the ante-war period, tasks that will require the full time of those interested with the executive duties.

Since the entrance of the United States into the war, Dr. Farrand has been the director of the tuberculosis work of the International Health Board in France, and has been in close contact with Red Cross activities. His broad knowledge of European conditions, his high executive qualifications and the vital force of his very unusual personality will all be vital factors in increasing the usefulness and broadening the scope of Red Cross work.

Dr. Farrand's work in this and foreign countries has shown administrative ability of the highest order and in dealing with complicated political, social and professional situations overseas he has displayed in a marked manner exceptional qualities of diplomacy, tact and co-operation.

That the program of the American Red Cross under peace conditions will be virile, statesmanlike and broad is unquestioned.

California Poor Relief System

The State Board of Charities and Corrections has issued a booklet descriptive of county outdoor relief in California in 1918. It contains so much of interest and so much that physicians ought to know and do not know, that it is here reviewed at some length. The function of caring for public dependents in California is divided between state and county governments. This division may be shown thus:

I. The State Government.

- (A) Assumes the care of the dependent,
 - (1) Insane (almost exclusively).
 - (2) Blind (almost exclusively).
 - (3) Feeble-minded (almost exclusively).
- (B) Co-operates with the county governments in care of,
 - (1) Orphans, half orphans, abandoned children (who meet certain eligibility requirements and who can show "evidence of need").
 - (2) Tuberculosics (who are cared for in county hospitals maintained at standard acceptable to State Board of Health).

II. The County Government.

- (A) Assumes the care of the dependent,
 - (1) Adults—
 - (a) The aged, the sick, the unemployed or the otherwise incapacitated adult individual.
 - (b) The nonself-supporting family.
 - (2) Children—Those not eligible for state aid.
- (B) Co-operates with the state government in the care of,
 - (1) Orphans, half orphans, abandoned children.
 - (2) Tuberculosics.
 - (County provides care for this class in county hospital. State pays county \$3

per week, per patient, where hospital meets certain standards.)

Methods of Relief.

The public relief system consists of two branches: (1) institutional relief; and (2) outdoor relief. The relief administered by state and county governments differentiated as between institutional and outdoor may be shown thus:

I. Institutional Relief.

- (A) The state government,
 - (1) Maintains,
 - (a) Hospitals for the insane (six institutions).
 - (b) Home for the adult blind (one institution).
 - (c) Homes for the feeble-minded (two institutions).
 - (2) Assists (by subsidies),
 - (a) Private institutions societies, and the counties in the care of orphans, half orphans and dependent children.
 - (b) County hospitals (in care of certain tuberculosics).
- (B) County governments maintain,
 - (a) County hospitals and infirmaries for sick and aged poor. (These are combined hospitals and almshouses, except in three counties where the two departments are in separate institutions.)

II. Outdoor Relief.

- (A) State government grants outdoor relief only to
 - (1) Orphans, half orphans, abandoned children (who meet certain eligibility requirements and who can show "evidence of need").
- (B) County governments grant outdoor relief to,
 - (1) Adults,
 - (a) The aged, the sick, or the otherwise incapacitated adult individual.
 - (b) The nonself-supporting family.
 - (2) Children,
 - (a) Those eligible for state aid.
 - (b) Those ineligible for state aid.

Cost of Public Poor Relief (1916-1917).

- 1. Cost to state government.
 - (A) Institutional relief.
 - (1) Hospitals for insane..... \$2,383,150
 - (2) Home for adult blind..... 43,055
 - (3) Home for feeble-minded.. 443,915
 - (4) Subsidies to county hospitals..... 32,100
 - (B) Outdoor relief.
 - (1) Care of dependent children..... 522,000
- 2. Cost to county governments.
 - (A) Institutional relief.
 - (1) County hospitals and infirmaries..... 2,738,782
 - (B) Outdoor relief.
 - All classes outdoor aid..... 1,200,441

Grand total \$7,363,443

Summary.

The preceding outline shows briefly that California spent \$7,363,443 for the public relief of dependents during the year 1916-1917. Of this amount, \$3,939,223 represents the expenditures of the counties while \$3,424,220 was the amount spent by the state.

The account given shows also that in the relief of public dependents the state government takes care almost exclusively of the blind, the insane, and the feeble-minded. It also helps orphans, half orphans and abandoned children and in certain instances grants subsidies to county hospitals for the care of tubercular patients.

The responsibility of the counties in poor relief is that of the care of all other dependent classes not cared for by the state and, in addition, co-

operation with the state in the care of orphan children mentioned above.

This is, in outline, the scheme of public poor relief in California. The State Board of Charities and Corrections is the state agency for investigating and standardizing all county institutions and the expenditure of all public moneys for the care and maintenance of dependents and delinquents.

County relief methods are far from uniform and most are unsystematized and indiscriminate. Alameda, Los Angeles, Fresno, San Mateo, Sonoma, San Bernardino, and San Francisco counties are among those counties doing more than granting material relief; they are working constructively by providing in addition skilled ministry to wants which are beyond the power of material relief to supply. They are using all public and private agencies to upbuild the health, education, morals, industry and living standards of the less fortunate in their communities, as well as providing the necessities of food, shelter and clothing. Space will not permit detailed discussion of each of these counties and they all differ in some branches of their relief methods.

Intelligent, constructive treatment of its dependents is a county problem than which there is none more important in relation to the future welfare of the community. To plan wisely involves a knowledge of the facts concerning each individual case so that the best remedy can be applied. Good relief work is not palliative but curative. The advantage of public relief over that administered by private agencies lies in its possibilities for wider outlook and abilities to correlate better the needs and resources of the community.

To make effective this advantage and at the same time safeguard it from perils of misuse or loss of personal interest, there should be at least one trained social worker connected with the relief work in each county. A program for future progress in county government should work toward these objectives:

1. Trained workers as
 - (a) Probation officers.
 - (b) Relief agents.
 - (c) Hospital superintendents and employees.
 - (d) Health officers.
2. Organization of the county social work: An unpaid commission or department to appoint paid employees and handle all public relief and welfare problems.
3. Co-operation.
 - (a) Between county and state authorities.
 - (b) Between probation, relief, health, and child welfare agencies in the county.
 - (c) Between counties: e.g., joint tuberculosis sanatoria, prison camps, health officers, transportation of indigents, etc.
4. Budget system: A modern system of budgeting county expenditures, apportioning adequate amounts to the various social agencies.
5. Employment of prisoners: On roads, levees, farms, quarries, etc., by single counties or by groups of counties and cities.
6. Boarding homes for children: Development of a boarding-out system of supervised foster homes through relief officers, juvenile courts, and private charities.
7. Charities endorsement: Control of all appeals made to the public for philanthropic purposes.
8. Extension of Health Service.
 - (a) Co-operation with other counties to secure trained health officers and visiting nurses; and to put into effect preventive public health measures such as those pertaining to isolation, sanitation, housing, etc.
 - (b) Out-patient work in county hospitals, county clinics and dispensaries; care of the sick in their own homes

(c) Intelligent and humane treatment of the tubercular.

9. Humane care of the insane by
 - (a) Detention in hospitals instead of jails.
 - (b) Examination by expert alienists.
 - (c) Treatment of incipient cases.
 - (d) Informal court hearing in hospital.
 - (e) Transportation by trained attendants.
10. Full-time service of hospital superintendents, physicians, relief agents, probation officers, and other social workers so far as the extent of the work in the several counties demands.
11. Merit system of appointment taking social service out of politics.

New Members

Brown, H. A., San Francisco.
 Donovan, Monica, San Francisco.
 Dunn, R. H., San Francisco.
 Wood, Lorin F., Sr., Point Loma.
 Hulbert, Robt G., San Diego.
 Young, J. H., San Diego.
 Hart, Trusten M., Los Angeles.
 Brennan, T. F., Los Angeles.
 Saylin, A. J., Los Angeles.
 Opdyke, Ralph, Los Angeles.
 Parker, W. B., Los Angeles.
 Whitney, Eugene W., Los Angeles.
 Myers, Laura T., Hollywood.
 Canby, Charles B., Van Nuys.
 Jacobson, H. P., Los Angeles.
 Scholtz, Moses, Los Angeles.
 Turner, W. D., Long Beach.
 Forsythe, J. Steele, San Bernardino.
 Joy, H. T., Redlands.
 Benners, James W., San Bernardino.

Deaths

Maxson, Willis H. A graduate of the University of Michigan, 1883. Licensed in California 1888. Died in Oakland, February 4, 1919, after a month's illness.

Mish, Sol. C. A graduate of Kentucky School of Medicine, 1892. Licensed in California 1893. Died in San Francisco March 3, 1919.

Rhyan, Walter Wesley. A graduate of Starling Medical College, Ohio, 1903. Licensed in California, 1912. Died in La Vina, California, February 18, 1919. Age 46.

Tilden, Adelbert D. A graduate of the Eclectic Medical Institute, Cincinnati, 1876. Died in Riverside, Calif., January 11, 1919.

Carter, James M. G. A graduate of Chicago Medical College, Ill., 1880. Licensed in California 1912. Died in Los Angeles March 3, 1919. Age 75.

Couture, A. N. A graduate of the Hahnemann Medical College, San Francisco, 1894. Licensed in California 1895. A member of the Medical Society State of California. Died December 26, 1918, Auburn, Cal.

Cunningham, Arthur Lee. A graduate of Hahnemann Medical College, Philadelphia, 1890. Licensed in California 1890. Died in Oakland, California, March 1, 1919. Was a member of the Medical Society, State of California.

Darling, O. A. A graduate of Eclectic Medical College, Ohio, 1882. Licensed in California 1896. Died in Loma Linda, Cal., January 21, 1919.

Hubbel, Harriet H. H. A graduate of Cooper Medical College, 1890. Licensed 1890. Died in San Francisco February 16, 1919. Age 72.

Latimer, Jay Amherst. A graduate of Cleveland College Physicians and Surgeons, Ohio, 1898. Licensed in California 1916. Died in Claremont, California, January 24, 1919. Was a member of the Medical Society, State of California.

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SAXTON POPE, M. D.
ALFRED C. REED, M. D.
CELESTINE J. SULLIVAN

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Butte.....	Dr. Edward Baumeister, Chico
Contra Costa.....	Dr. P. C. Campbell, Richmond
Fresno.....	C. O. Mitchell
Glenn.....	Dr. W. H. Walker, Willows
Humboldt.....	Dr. L. P. Dorais, Eureka
Imperial.....	
Kern.....	Dr. C. A. Morris, Bakersfield
Lassen-Plumas.....	
Los Angeles.....	Dr. Win. Wenzlick, Los Angeles
Marin.....	Dr. W. F. Jones, San Rafael
Mendocino.....	Dr. O. H. Beckman, Fort Bragg
Merced.....	
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Napa.....	Dr. Robt. Crees, Napa
Orange.....	Dr. H. A. Johnston, Anaheim
Placer.....	
Riverside.....	Dr. Paul E. Simonds, Riverside
Sacramento.....	Dr. Wm. A. Beattie, Sacramento
San Benito.....	

San Bernardino.....	Dr. C. L. Curtiss, Redlands
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Siskiyou.....	Dr. Wm. F. Shaw, Yreka
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Yolo.....	Dr. Frances L. Newton, Woodland
Yuba-Sutter.....	

No. 5

Those who did not go, certainly missed a rare occasion. Fun and work were intermingled. Har-

monious, constructive action was the key-note, and this note was struck both by the retiring and the incoming presidents. If any word of criticism is possible, it is of the too common practice of electing men as delegates who cannot attend and who do not appreciate the important functions of the House of Delegates. The new sense of united strength and realization of the part medicine is to play in the next decade, were great features.

LEAGUE LUNCHEON.

Probably no other single feature of the State Society meeting at Santa Barbara attracted so much attention beforehand, so large an attendance at the time, and so universally favorable comment as the luncheon given by the League for the Conservation of Public Health on April 16 at the Hotel Belvedere. The Moorish room was crowded to capacity and two hundred persons additional were unable to gain entrance. The luncheon plainly showed that the medical profession is awake to its public health obligations and that it has adopted the League as a medium for wise guidance and education in public health matters.

The key-note of the impression made on the layman was voiced by Hon. P. H. McCarthy, president of the State Building Trades Council of California, who, in an eloquent and ringing address on "Labor's Contribution to Health Conservation," stated that he had felt for years that he knew and thoroughly understood the doctor. This belief was completely shattered by what he heard and saw at the League luncheon. He found that doctors had public spirit, were co-operative, and were banded together in a League for the Conservation of Public Health in every sense of the word. In such a magnificent program, they had the fullest and most sympathetic support from labor. In opening his address, Mr. McCarthy said "On behalf of the mechanics, artisans and laborers affiliated with the State Building Trades Council of California I am particularly glad to be able to extend fraternal greetings to this League for the Conservation of Public Health."

Hon. Wm. A. Beasley, president of the California State Conference of Social Agencies, dwelt on the strategic position of the physician in social welfare work and the good work of the League already accomplished as well as coming. The purposes, and mission of the League were eloquently described by Drs. Graves, James Franklin Smith and Dudley Smith. In a keen and masterly address, Mr. Hartley Peart, general counsel for the League as well as for the State Medical Society, discussed the rights of the people in regard to public health laws. This address should be studied by every physician. Mr. Celestine J. Sullivan, executive secretary of the League, proclaimed the need and usefulness of publicity as the physician's strongest weapon in a campaign for public health. He showed how the right use of this powerful agency is a duty that must not be neglected. The State Medical Society is to be congratulated on having the advantage of Mr. Sullivan's service on the Journal staff, and the officers of the League for the Conservation of Public Health were far-

sighted and fortunate in securing him as the League's full-time executive secretary.

It is unnecessary to remind the physicians of California that as they will eventually join the League, they had better do it now and follow the lead of the majority. Its function is of the utmost importance to the medical profession and the public alike. To paraphrase a quotation by Mr. McCarthy at the League luncheon, "A duty deferred, is a duty denied." Join at once.

HOSPITAL IMPROVEMENT AND STANDARDIZATION.

There is no argument among well-trained physicians and surgeons as to the desirability and necessity of improving and standardizing hospital service. Widespread and equally widely recognized abuses have grown with the growth of our present hospital system, and too often seem an integral part of that system. If the hospital as a social institution, is to exist and develop, these abuses must be corrected. That they will be corrected as the medical profession awakes to the situation, goes without saying.

Standardization and improvement of hospitals must be based on and take full cognizance of certain fundamental propositions whose importance and truth are universally admitted. Similar standards are not applicable to commercial, industrial, university, teaching, charitable, private, metropolitan and rural hospitals. Standards that are applicable and efficient must consist of principles of policy which can admit of individual application to the varying needs and functions of different types of hospitals.

All hospitals have three functions which must be served to their fullest capacity if the name hospital is not to become a reproach. First and above all, and including the other two, the hospital must guarantee the best available service of scientific medicine for the patient. The patient's interest must be paramount. Second, the hospital must serve to improve and stimulate the medical profession, to the end that the profession may render still better service to the patient. Third, the hospital must utilize its strategic opportunity, which here is an obligation, as a health educational center, which again is decidedly for the interest of every patient, actual and presumptive.

Insofar as any hospital falls short of measuring up to these three standards, so far as in it lies, just so far does it need improvement and standardization. Any hospital which does not incorporate these three standards in its avowed and actual policy, cannot cease to exist too quickly for the benefit of the public and the medical profession.

Of course there are certain details, varying with the hospital, which are necessary in order to realize these aims. Proper equipment, case records, efficient staff organization, etc., are requisite. It must be remembered that there is a place and a definite function for the small hospital, both rural and urban. Just as the medical profession finds its common center of education, improvement, professional comradeship and service, and

business association in the metropolitan hospital, so must the rural and small town hospital be developed as the rallying point and headquarters of the medical profession in its organized attack on disease, and its co-operative campaign for public health.

The present nation-wide movement among a number of medical and hospital organizations, for hospital improvement and standardization is to be commended. The time is ripe and conditions require re-organization and development along these lines. The internist is just as vitally concerned as the surgeon in all that makes for the development and perfecting of the hospital. Every specialist has a similar interest and desire. All social and charitable agencies are concerned, inasmuch as their entire program centers in the work of the medical profession. Industry is concerned inasmuch as better health has a definite and clearly recognized relationship to business and production. Preventable disease today increases the cost of industrial production by one fifth. The Red Cross is interested as its work, too, swings on the pivot of the medical profession. The Government itself is vitally concerned since, as the draft examinations so forcibly demonstrated, the citizenry of the nation is jeopardized by preventable disease and defect, and only the principles of modern scientific medicine can avoid disaster.

In all of these various lines, the medical profession is the essential and fundamental factor, the pivot on which the whole structure swings. The bulwark and power-house of the medical profession is the hospital. Since the medical profession alone is devoted solely by training and intention to health matters, and since the hospital is peculiarly the offspring and creature of the medical profession, it follows that the physician is most competent to say what the hospital ideal should be and how the hospital should reach its ideal.

Here appears the singularly fortunate relation of the California profession to the League for the Conservation of Public Health, which is eminently suited to act as clearing house for the development of a strong correct policy of hospital improvement in this State. Through the hospital section of the League, the medical profession can correlate and study full data on the situation and wisely recommend improvements based on experience of all interests involved.

One striking lesson of the present recognition of certain hospital abuses, is a short-sighted tendency on the part of some enthusiasts arbitrarily to limit the hospital staff on the basis of professional qualifications of doctors. At first glance it seems self-evident that the poorly trained and incompetent doctor should be excluded from standard hospitals. But is this the best solution of the problem?

It is agreed that the paramount article in hospital policy must be service to the patient, and providing for the patient the best that scientific medicine can offer. If it is true that not over 15 per cent. of sickness is treated in hospitals, it is equally true that 85 per cent. or more of the sick

are treated in their homes. Will the average patient of an incompetent doctor receive better treatment by that doctor in the patient's home, with no conveniences, no scientific and often no sanitary equipment, and no possibility of review of the patient's condition by any other doctor, or will he receive better attention by the same doctor in a good hospital, where the patient sees more or less of what other patients are receiving, where he absorbs more or less of the hospital atmosphere of sanitation and scientific medicine, and where the doctor is brought into more or less intimate association with high-class physicians? We are not speaking of the unethical doctor, or the illegal or crooked practitioner, but of the honest but incompetent doctor. In which case will such a patient's best interests be served? And is not the hospital above all things charged with serving the patient's best interest?

Does not such a view of the situation strikingly illustrate the fallacy of trying to save at the spigot while we waste at the bung-hole? Why should there be incompetent practitioners? Why should not the public be protected by laws sufficiently strict, and by laws administered with sufficient strictness, to prevent the licensing of incompetent practitioners? *That* is the crux of the whole situation and *there* is where the real remedy must be applied. Let us have such standards for medical education and licensure as will eliminate the poorly trained and incompetent doctor.

The medical profession is getting together for the improvement and standardization of hospitals on broad scientific and social lines. Arbitrary and inelastic standards must be avoided. Principles of hospital policy as exemplified in practice, must be the standards set. The usefulness and opportunity of the hospital is only now beginning to be appreciated. The entire medical profession must concern itself with maintenance of hospital ideals.

WAR LESSONS IN PUBLIC HEALTH.

The press, both medical and popular, has duly emphasized the great impetus resulting from the war in matters pertaining to public health. It is unnecessary to recount the various practical illustrations of what doctors and public alike have learned from the war in this field. The pivotal position of the medical profession has been abundantly evident in the military service, both army and navy, not only in cure of disease and injury, but to a vastly greater extent in the prevention of disease, and the making possible of campaigns otherwise impossible. The medical service has shared with a few other services the honor and responsibility of being absolutely basic and essential for the winning of the war.

Similar lessons applicable to the function of the doctor in public life can be drawn from the war with reference to the key position of the doctor in industrial medicine, in social service, in insurance and numerous other branches of civic progress. The development of public health is one of his special functions and a function of vital necessity for the state and for civilized society. This is clearly recognized by the world's leaders

and constructive statesmen. It is strikingly shown in an extract from a speech by Premier Lloyd George delivered at Manchester, England, September 12, 1918.¹ This was spoken just two months before the armistice: "We have done great things in this war. We would have accomplished greater if this country had been in condition; and a war, like sickness, lays bare the weakness of a constitution. What has been our weakness? Let us talk quite frankly. We have had a Ministry of National Service, and carefully compiled statistics of the health of the people between the ages of 42 and 18. . . . All I can tell you is that the results of those examinations are startling and I do not mind using the word appalling. I hardly dare tell you the results. . . . I asked the Minister of National Service how many more men we could have put into the fighting ranks if the health of the country had been properly looked after. I staggered at the reply. It was a considered reply and it was, '*at least a million.*'"

Think of that answer and then think of the results of our own draft where approximately one-third of those examined were disqualified on physical grounds. Here is where the doctor has a great purpose to serve and needs the co-operation and backing of every thinking citizen.

WOMEN IN INDUSTRY.

The Department of Labor, through its Women in Industry Service, has formulated certain principles and standards governing employment of women in industry which are strongly recommended for general observance. Women have an industrial position which is weaker economically than that of men. They are more subject to exploitation. They require special safeguards, in order to conserve alike their industrial efficiency, their health, and the general interests of society.

During the war, all Federal contracts contained a clause requiring full compliance with State labor laws. This supplies an excellent precedent for co-operation between Federal and State governments in developing proper standards for women's work. In reconstruction, both civil and military, protection of health of women workers is vital as an economic as well as a social measure.

The standards recommended provide for a maximum of 8 hours per day and 48 hours per week. A Saturday half-holiday is urged. Adequate time for meals, and a 10-minute rest period in the middle of each working period are included. No woman should be employed between 10 p. m. and 6 a. m. For the same work as men, women should receive the same wages. Wage rates should be based on occupation, not on sex. Minimum wage should make allowance for expense of dependents, and not for individual support alone.

Sanitary requirements include washing facilities with hot and cold water and individual towels, sanitary toilets, dressing rooms, clean work rooms, proper light and ventilation, sufficient cool drinking water, and provision for hot lunches outside the work rooms. Scrupulous care should be exer-

cised to control or eliminate industrial hazards pertaining to each occupation. Uniforms for women are recommended. No home work is to be given out.

These are matters of importance. The number of women gainfully employed in industry is fast increasing. The impetus given by the war will far outlast the war. So serious is the effect on women's health of long hours of employment, that the U. S. Supreme Court has adjudged it constitutional to use the police power of the State in limiting women's working hours as a necessary public health measure. In California constant attention is necessary especially in the fruit and canning industries.

VOLUNTEER MEDICAL SERVICE CORPS.

Characterizing the work of the Volunteer Medical Service Corps and the Medical Section of the Council of National Defense as "a very striking demonstration of the American spirit," Dr. Edward P. Davis, president of the Corps, paid tribute to the patriotism of American civilian doctors at the final meeting of the Central Governing Board of the Corps held in Washington, March 14th, prior to the termination of its wartime activities April 1.

A report submitted at the meeting showed that nearly 70,000 applications have been received from physicians for membership in the Corps, of which 56,540 had been received and coded prior to the signing of the armistice, November 11, 1918. Qualifications of these civilian doctors, classified and coded on cards, will be placed in the library of the Surgeon General of the Army, where they will be accessible to all governmental departments for all time to come. With the approximately 40,000 medical officers additional, who are in the Army, Navy and Public Health Service, practically all the able-bodied, eligible doctors of the country will be listed, available for the nation's needs. Usually there are said to be about 150,000 physicians in the United States, but this total includes a large proportion of superannuated, disabled or ineligible.

To about 13,000 doctors whose applications for membership in the Volunteer Medical Service Corps had been received before the armistice was signed but which had not been acted upon by their State committees, now dissolved, Dr. Lewis is sending the following letter:

"With the cessation of hostilities subsequent to the signing of the armistice, the Council of National Defense, under which the Volunteer Medical Service Corps was organized, asked that the activities of that Corps be terminated, and Surgeon General Ireland of the Army requested that the valuable records of the Corps be given place in the Library of the Surgeon General where they will be maintained permanently for reference by the various Government bureaus.

"Your application for membership in this Corps, we regret to say, was not acted upon by your State and County Committees before those Committees were automatically released and, therefore, we are unable to complete your membership

¹ Keith, Journal State Medicine, February, 1919.

by furnishing you with the visible evidences of your tender of service, viz., the insignia and certificate of the Corps. We wish you to know, however, that your patriotic offer of service to your Government has been received and your qualifications as outlined on the Volunteer Medical Service Corps application blank have been transferred to permanent code cards which are to be preserved as an important record of the war."

DIPHTHERIA CONTROL.

The importance of preventive medicine is receiving just appreciation in all departments of medicine. Nowhere is this better exemplified than in the case of diphtheria. Here is a disease with a fearful mortality and serious sequelae, which is largely curable when properly treated, and entirely preventable by proper methods. In New York City since the introduction of antitoxin, the diphtheria death rate has fallen from 130 to 20 per 100,000 population and the incidence has fallen 30 per cent. The incidence and death rate was highest in children of pre-school age.

Certain definite and well-supported measures are recommended by Dr. Wm. H. Park of the New York Department of Health. Especially in institutions, children should receive the Schick test for diphtheria susceptibility. Park found susceptibility by ages to be as follows:

Under 3 months	15 per cent. susceptible
3—6 "	30 " " "
6—12 "	60 " " "
1—2 years	70 " " "
2—3 "	60 " " "
3—5 "	40 " " "
5—10 "	30 " " "
10—20 "	20 " " "
Over 20 "	15 " " "

Those who are found susceptible by the Schick reaction should then be immunized by hypodermic administration of a toxin—antitoxin mixture, which is as effective as typhoid vaccine against typhoid fever. This injection is harmless, even in infants. One injection immunizes 80 per cent. of susceptibles. Two injections immunize 90 per cent. and three injections immunize 97 per cent. Immunity lasts at least for three years.

These methods are applicable in schools and ought to become a valuable part of the campaign against diphtheria. Prevention is cheaper and more scientific than cure. When prevention fails, in the case of diphtheria, antitoxin should be used early and in large doses. Usually a hypodermic administration of 0.3 cc is safest, and if no reaction ensues, follow in one hour with the total amount. An adult should receive 20,000 units. If the preliminary dose causes reaction, a series of doses at one hour intervals, graded according to severity of reaction, are necessary to detoxify.

It is impracticable to diagnose diphtheria carriers on a large scale by culture. Identification of susceptibles by the Schick reaction and their immunization by a partially neutralized diphtheria toxin is the best procedure.

EDITORIAL COMMENT.

Do not preach vaccination against typhoid until you and your own family have been vaccinated.

No industry, trade, profession, or society is more democratic than science. She offers equal opportunity to all her followers, regardless of race, creed or finances. She rewards all strictly according to their deserts. Her one requirement is honest and result-getting effort.

It is a paying proposition for any newspaper to conduct a Health Department, edited by someone who guarantees scientific accuracy and authority. It pays in interest to readers and in furtherance of public health, certainly not the least of a newspaper's functions. Moreover, a newspaper cannot consistently run a snappy, scientific, practical Health Department and carry ads of quack doctors and quack medicines.

It is authoritatively stated that diphtheria, tonsillitis, common colds, influenza, scarlatina, and possibly tuberculosis, may be spread by the common drinking cup. The unsanitary privy, the roller towel, the unclean well, and the common drinking cup are four stalwart reasons why rural health is not so good as urban health. The common drinking cup is prohibited by California law and ought to be abolished by common consent.

Philip King Brown describes the peculiar plan and function of the Arequipa Sanatorium for wage-earning women and the results thus far attained.² Impressed by the fact that tuberculosis is quite as much a social problem as a medical one, the Arequipa Sanatorium planned so as to put great emphasis on all that pertained to the lives of its members and not merely on the tuberculosis. Three organizations are centered in the Sanatorium: one that takes up the problems of the applicants and begins the work with them before admission to the sanatorium; the sanatorium proper; and a committee that follows the women who need a change of job or work for the first time and that follows them year in and year out after they leave. Unusual endeavors are directed to the patient's mental state that this may be as comfortable as the physical well-being. The net result of the work is that 68 per cent. of first stage cases have been back at work from one to five years; and 41 per cent. of second stage cases as well.

According to the Bulletin of the Los Angeles Health Department, the maternity service maintained by that department is the only such one maintained by any health department in the United States. In 1917, 369 cases were delivered, 2500 ante-partum house calls were made, and 2700 post-partum calls; 2128 visits were made to the dispensaries by women and 445 by children. Not one mother has been lost since inauguration of the service.

² American Review of Tuberculosis, February, 1919.

Special Article

LETHARGIC ENCEPHALITIS.*

From U. S. Public Health Reports, February 21, 1919.

The following data are abstracted from a review of the Government report, published in a recent number of the *British Medical Journal*, to which acknowledgments are hereby extended.

"The disease is an acute affection due to a specific virus, which, like that of acute anterior poliomyelitis, probably finds entrance through the nasopharynx, and which, like it, has a special affinity for the nervous system, though for different areas and elements.

"Pathologically, lethargic encephalitis belongs to the class of polio-encephalitic diseases which are inflammatory in nature. Bacteriological investigations did not yield any positive results.

"Clinically the disease is a general infectious disease characterized by manifestations originating in the central nervous system, of which the most frequent and characteristic are progressive lethargy or stupor and lesion in or about the nuclei of the third pair of cranial nerves. Although a rise in temperature was not observed in all the 164 cases of the disease of which notes were obtained, there seems to be little doubt that there is always a certain amount of fever in an early stage, although occasionally it may not be observed for several days after the onset of symptoms. The common range is between 101° F. and 102° F., but temperatures up to 104° F. are not very uncommon, and in a few cases a temperature between 104° F. and 105° F. has been reached. The pyrexia usually lasts from 2 to 5 days, but may continue for 10 or even 14. It may fall suddenly or gradually with oscillations. A period of subnormal temperature not infrequently follows.

"In the majority of cases a prodromal period may be recognized, but it is not very well defined, the symptoms being the early stage of those of the developed disease. Usually the first symptom is simple catarrhal conjunctivitis and in a smaller number of cases tonsillitis, simple sore throat, and bronchial catarrhs were observed, but the salient symptom observed in 80 per cent. of the cases at this stage was progressive lethargy. It might be ushered in suddenly by a fainting attack or fit, but the onset was more often gradual. The patient became dazed or stupid, slept a great deal, and was drowsy by day. In marked cases the lethargy was accompanied by heaviness of the eyelids, pain in the eyes, blurred vision, and photophobia, and, in a well-marked case, gradually passed into stupor. Headache was common, and giddiness was a highly characteristic early symptom, and in some cases was accompanied by diplopia. Mental hebetude was often associated with a highly emotional state, and the patient might exhibit, without apparent cause, symptoms which might be labeled hysterical. In other instances the mental depression was so great that melan-

cholia was suspected. In a few cases only was the patient restless and irritable. The patient may be indisposed to speak, sometimes has distinct difficulty in articulation. The most frequent and characteristic signs in the prodromal period may be summed up as lethargy, asthenia, vertigo, headache, diplopia, and some alteration in the mental state.

"After this prodromal period, if it occurs, the symptoms of a general infectious disease become manifest; the febrile reaction has already been mentioned. The patient lies in bed on the back, often unable to make any voluntary movement on account of great muscular weakness; the face is quite expressionless and masklike, and there may be a definite double facial paralysis. The severest cases lie like a log in bed, resembling a waxen image in the lack of expression and mobility, and this may be accompanied by catalepsy. The patient is in a condition of stupor, although true sleep is often not obtained. Delirium, usually nocturnal, is not uncommon, and in addition to the muscular trouble there is distinct rigidity in a considerable proportion of cases. The voice becomes nasal and monotonous, sentences are uttered very slowly and words slurred into one another. Occasionally, however, once started to speak, the patient chatters sentences with so great rapidity that he is often unintelligible. Irregular non-rhythmic spontaneous movements of the face, trunk, and limbs, resembling those seen in chorea or thalamic infections, are not infrequent. Cases occur which present the general symptoms of the disease—pyrexia, lethargy, asthenia—without localizing signs, and as a rule can only be diagnosed from the general surrounding circumstances. The commonest localizing sign is ophthalmoplegia, recognized in 75 per cent. of the cases examined. Ptosis is the commonest form of third nerve paralysis and is usually at some stage bilateral. Finally, paralysis is usually bilateral, or becomes so, but is almost invariably more intense on one side than the other.

"*Diagnosis.*—The most common error in diagnosis is to attribute the condition to tuberculous meningitis; in many cases a differential diagnosis from cerebrospinal meningitis can not be made without an examination of the cerebrospinal fluid, which is little, if at all, altered in the majority of cases of lethargic encephalitis.

"Some of the other difficulties encountered have already been mentioned, but the essential difficulty is to separate lethargic encephalitis from the rare cases of the cerebral form of infantile paralysis. The resemblance is very close, and it seems probable that some of the cases reported in the past as cerebrospinal poliomyelitis may have been examples of the disease now newly recognized in this country (England). Dr. McNalty has arranged the chief criteria for diagnosis in a table which is too long and detailed for reproduction here. The main points to be noted seem to be that, though the chief symptoms of lethargic encephalitis have been described in cases reported as cerebral poliomyelitis, they are slight, of much briefer duration and not so constant; lethargic encephalitis, on the other hand, has a very definite clinical

* Lethargic Encephalitis, "Sleeping sickness," has been declared a reportable disease in California. Reports of all cases that may be suspicious of this disease should be made promptly to the State Board of Health, together with all available data relative to symptoms, date of onset and all clinical data.

syndrome, characterized by progressive stupor or coma, alternating delirium, headache, giddiness, asthenia, mental and emotional changes, and in the majority of cases, by paralysis of the third pair of cranial nerves. Paralysis, when present in lethargic encephalitis, is usually bilateral and restricted to cranial nerves, but has commonly cleared completely or is less in degree two months after recovery. In these respects it presents a marked contrast to acute poliomyelitis.

"There are clinical indications that in the present outbreak both poliomyelitis and lethargic encephalitis have occurred, but not in association with each other.

"Dr. McNalty considers that the question of the identity or non-identity of the two diseases is still open, but suggests that the relation between them may perhaps be comparable to that known to exist between typhoid and paratyphoid fever."

Original Articles

RED CROSS WELFARE WORK IN PARIS, FRANCE.*

By TITIAN COFFEY, M. D., Los Angeles.

Mr. President, Ladies and Gentlemen:

Dr. Shoemaker asked me a day or two ago at the hospital to say a few words in regard to conditions in France, and I find he has given me considerable latitude under my heading, for which I am very thankful. So much is being done in so many fields that it is impossible to cover the ground adequately; only history and time can tell all that has been accomplished and at present we can only take a birdseye view, at it were, sighted from personal experience.

The amazing growth of the A.R.C., its wonderful organization in Paris and the things that have been done through it, is one of the wonders of the world. From an organization of a handful of workers with about \$100,000 capital to increase in less than a year's time to a corporation of 5000 in July of last year, and a capitalization of nearly two million, gives a faint idea of its phenomenal expansion and increasing importance. When the armistice was signed in November we had a personnel of over 7000 and more on the way from America.

Fortunately the A.R.C. was on the ground before even the troops went abroad, and having on hand a considerable amount of supplies and knowing the market, were of unestimable aid in furnishing supplies of every sort and description to our men, and believe me, they were needed.

The guiding thought throughout all the A.R.C. activities was *the Army first*, personnel, supplies, money, everything. All else was of secondary importance. The idea carried in mind by every representative of the organization was that we were the responsible trustees of the huge sum of money donated by the great, generous American public and the dominant thought was that the money should be spent individually as the American

people would wish if they were on the ground superintending the work.

The medical work for the refugee and civilian population of France was divided into three departments:

Tuberculosis under Dr. Livingstone Ferrand, of the Rockefeller Institute;

Child Welfare under Dr. W. P. Lucas of San Francisco, and the Refugee work first started by Dr. Richard Cabot of Boston. After inaugurating the work with Major Folk and Dr. Devine, Dr. Cabot returned to the Army and the department was carried on variously until Dr. Knox of Baltimore took charge for six months and I had the honor to follow him.

Our activities dealt with the refugee and civilian population, the military end being under the Bureau of Hospitals and Supplies. To facilitate the work throughout France a delegate was sent into nearly every department as the representative of the A.R.C. These departmental men and women immediately associated themselves with the various French activities and through prefects and local organizations established warehouses, organized work or relief measures for the reception of the refugees, bureaus to give the women work, bureaus for the distribution of food and clothing and suitable housing accommodations.

The tale cannot be told in words or written by pen of the amount of solace and comfort given by the Red Cross to the unfortunate refugee.

France, as you know, is an essentially home-loving nation. Her people live close to the soil and love of country is a veritable passion with them. This is the first and utmost consideration with them and all else is secondary. So it is easy under the circumstances, to realize the sorrow and distress there was wrought upon the inhabitants of Northern France when they were driven like sheep before the invader, homes gone, loved ones killed or lost, family ties completely disrupted and household goods transported by hand. It is a wonder, knowing what they have gone through, that they have not gone insane with grief. Governmental jurisdiction over the distribution of the refugees was impossible at all times to be what might be desired on account of the general chaotic conditions. Many places reached the point of saturation, being overwhelmed by the number of refugees thrown on their resources. It was necessary for the A.R.C. to adequately house, feed and clothe these people beside giving medical attention to the sick and to find work for the able-bodied. With exposure to the elements, lack of nourishment, great mental stress and over-crowded conditions there was of course a great increase in ill health with rapid development of tuberculosis and epidemics of influenza, pneumonia, and gastrointestinal disturbances.

France, with all its romance and picturesqueness, pays little attention to what we consider essential from a sanitary standpoint. Screens are a rarity and there is a woeful lack of plumbing throughout France. Sewerage and filth clutter up the streets. Flies are a pest and during the warm weather it is almost impossible to eat one's food on account

*Read before Los Angeles County Medical Society, January, 1919. See L. A. County News, this Journal, February, 1919.

of swarms of flies. Naturally these unsanitary conditions in over-crowded places lead to increased disease, and all France is suffering from it.

From a medical standpoint it was necessary for the A.R.C. to establish dispensaries with competent doctors and nurses in charge to care for the refugee population, for in many districts there was no medical attention at all, and in others, civilian physicians were so overworked it was impossible to attend to all. In hospital cases we tried, if possible, to use the general French hospitals in large centers, but in many instances these were militarized and were so full they could not accept the indigent sick. Therefore it was necessary at certain points to establish A.R.C. hospitals for their care. Several of these were situated in the large cities and others were scattered throughout France in districts where hospital facilities were absolutely needed. We maintained also a large dispensary in Paris from which social service educational work was carried on with the training of young women and our clinic usually ran from 800 to 1000 cases each week.

Aside from the actual suffering and disruption accompanying war conditions the saddest thing to me was the appearance of the children. The little ones showed the effect of undernourishment and are about four years behind on growth. This is especially true of the refugee children. It is an unusual thing throughout France to see strong robust children such as one sees in America. They suffer from lack of starch, fats, sugar and milk. Asking a child his age and expecting an answer 5, 6 or 7, the little one usually replies that he or she is 9, 10, or 12 years old. All are anaemic, little faces pinched and drawn and they are very pitiful to behold. Practically all children of the poorer classes, and many adults for that matter, suffer from worms and thousands were treated without satisfactory results on account of the impossibility of keeping the children from reinfecting themselves caused by playing in filth and not having proper toilet facilities.

The condition of the refugees in many cases was very pitiful. The century-old buildings used in France, together with lack of sanitary conveniences, do not lend themselves to overcrowding or housing shifts of population. The idea of the A.R.C. in handling the refugee situation was to maintain as closely as possible the integrity of home life and great care was exercised to keep the family unit together. Wherever possible we tried to maintain home life, and only in an emergency where nothing else availed did we resort to use of the army barracks. These were very dreadful places, for from 60 to 100 individuals were often packed into one shed with absolutely no privacy at all. Boys and girls, men and women lived promiscuously together. Of course such crowded conditions tend to lower the moral tone and we avoided as much as possible having to depend upon the barracks for any continued length of stay. For financial aid the French Government allowed two francs to the mothers daily and one and one-half francs to each child, so families would have some little source of income. That made it possible for the refugee to

secure lodgings and buy food. The Red Cross also established *ouvres* or workrooms where employment was given women for which they were paid. They made mattresses, remodeled clothing, salvaged socks and clothing of the soldiers and redeemed much for future use. This latter was a great saving to the army and developed at some points into a very active industry.

A vast amount of dental work is necessary in France. Parents do not teach their children oral hygiene as they fear brushing the teeth will remove the enamel, and it is not an uncommon occurrence to see young men and women of twenty years of age with a mouthful of decayed fangs. On the other hand a Paris dentist told me that the adults' teeth are in better condition than many Americans. He explains this by the fact the French are not in the habit of taking very hot and very cold food in the mouth at the same meal, and thus subject the teeth to violent changes of temperature.

The obstetrical situation in France is one of great interest. Ever since the war of 1870 the birth rate of France has been decreasing and since 1914 the decrease has been almost appalling. At the same time the infant mortality rate has raised to an alarming extent and the situation at present is very grave. Abortions play a large part in this ghastly situation and have been estimated in 1917 as about 50,000 in the department of the Seine alone, and it was further estimated that abortions reached the shocking figure of 500,000 annually. Some authorities believed during the course of the war that work in the munition factories accounted for a considerable number. This has been proven not true, although these women are frequently subject to poisoning from their work. The Government gives them an allocation and requires that they be released from work a month before the expected date of confinement and do not return to work for four to six weeks following. Malnutrition, together with the absence of the men at the front and loss of many lives, accounts to a certain extent for the decreased number of pregnancies. On the other hand the number of illegitimate pregnancies has materially increased. Thierbiede believes the true cause for abortions and the diminished birth rate is the prevalence of syphilis, and its increase since the war. He estimates between five and six thousand cases appear in the army every month and gives a total approximating 300,000 cases for the first three years of the war. There is no question but the venereal problem at least equals and perhaps surpasses the tuberculosis problem. Another fact that has bearing upon the decreased birth rate is the French habit of basing marriage upon purely a financial basis. Every young woman upon marriage must be provided with a dot and this plays an important part in the necessity of having only a small family. The young women marry early and families blessed with three or four daughters are frequently in a sad predicament when it comes to marrying them off.

Very interesting is the method of caring for the illegitimate children. Up to seven months of age these infants may be left at various approved

institutions where they become charges of the Government, and few or no questions are asked concerning the parents. Should the mother wish to abandon the child after it is seven months old, an effort is made to have her keep the child, for, having maintained it through this period, it should be a matter of comparative ease to continue its care.

These infants are immediately put out to a wet nurse who is paid a small amount each month by the Government for their support. When they become 13 years of age, if a boy, he is farmed out to a peasant and learns agriculture. At 20 his education is completed by going into the army for three years. Upon returning to civil life he usually continues what he was originally taught. Girls are placed in institutions where they receive religious training and usually one simple task, which may be to work a buttonhole beautifully, embroider a wonderful rose or make pieces of fine lace. She is taught nothing of household economy, nothing about the use of money and nothing of the ways of the world. At 20 years of age she is provided with a dot of 500 francs by the Government, which is supposed to start her in life. During the institutional life when warm weather comes she is provided with suitable garments and in winter with heavier ones, but she knows nothing of the purchase or nothing in regard to the making of them. If she goes to a large city and is fortunate enough to obtain employment in the one particular line in which she is skilled all may be well, but usually the inevitable outcome is the result. If they have brains and beauty they join the ranks of the denimondaine and if they are unsuccessful they drift back to the institution which originally cared for them, become drudges, burdens to themselves, the institution and the state, absolutely unproductive from the standpoint of future repopulation of the nation.

The medical profession seem thoroughly alive to the gravity of the situation, but on account of politics and somewhat different views of life and morality which France holds in contradistinction to our views, little or nothing is being done to remedy the situation. The only possible way the country can be repopulated and nationally become once more strong and vigorous is by a national educational propaganda instilling into the mothers the necessity of child-bearing and making it possible to support these children if the family cannot do so and to carry on an active and vigorous campaign for the conservation of child life, together with the hygienic and sanitary improvements and necessary education. Little or nothing will ever be done locally and only a national movement involving great labor, time and money will be of any avail.

We must all admit they are a wonderful people and have carried the brunt of this horrible war in a manner to amaze the world. We are much further advanced along many lines than they and there is no doubt our presence will have a most stimulating effect upon their future.

ENDOCRINE GLANDS AND THEIR RELATION TO VASO MOTOR DISTURBANCES OF THE AIR PASSAGES, HAY FEVER AND ASTHMA, WITH THE PAST YEAR'S REPORT.

(Continued from April issue.)

By GRANT SELFRIDGE, M. D., San Francisco, Cal.

FURTHER OBSERVATIONS.

Among the 26 cases of vaso-motor rhinitis 14 were found with signs of slight endocrine gland insufficiencies. No study was made of the remaining cases to determine the possibility of gland insufficiency. Several have had the focal infections removed, with the idea that the irritation (vagatonia) might be caused by the infection. Some of these have been relieved by the operative procedures, but here too, the period has not been long enough to be certain of the result.

HAY FEVER CASES.

Cases tested during the year, 41. Cases treated during the year, 29. Of the 41 cases seen 21 began treatment after the beginning of the hay fever season. Fourteen had no attacks at all after the first injection; seven had one to three attacks during the season; eight commenced treatment 3 to 5 weeks prior to the hay fever season; of these seven were entirely free of attacks. One had several attacks. Thirteen cases received no treatment.

During the past year, we have at various times used 125 pollens for testing purposes and the following have been positive:

Johnson grass.....	4 times	Cottonwood	1 times
Orchard grass.....	4 "	Poverty-weed	4 "
Broncho grass.....	15 "	Cal. goldenrod.....	1 "
Canary grass.....	14 "	Spikeweed	1 "
Salt grass.....	12 "	Bull thistle.....	1 "
Wheat	10 "	Curley-dock	2 "
Kentucky blue.....	11 "	Old man calif.....	4 "
Sudan grass.....	1 "	Marguerite or field	
Wild oats.....	15 "	daisy	1 "
Sitanion	5 "	English plantain	
Yarrow	2 "	(ribwort)	8 "
Tumbleweed	4 "	Mugwort	8 "
Pigweed	1 "	Nev. mugwort.....	4 "
Sage brush	6 "	West. ragweed.....	7 "
Giant rye.....	3 "	Giant ragweed.....	3 "
Slender rye.....	3 "	Cocklebur	3 "
Red top.....	3 "	Sneezeweed	2 "
Timothy	2 "	Dandelion	1 "
Alfalfa	1 "	Red orache.....	4 "
Cal. walnut.....	6 "	Teleg. plant.....	1 "
Valley oak.....	2 "		

The grasses mentioned above belong to 6 tribes, of the others except the trees, four belong to the ragweed tribe, two to the aster tribe, one to the sneezeweed tribe, three to the chenopod family, one to the tarweed tribe, two to the sage brush and one to the polygonaceae (dock) tribe.

It will be seen that the spring type predominates, the explanation being that the cases so reacting live in San Francisco or in the nearby Bay counties. Unquestionably there are reasonably large numbers living in the southern part of the San Joaquin valley, who are sensitive principally to the summer and fall flora. This, judging from testing residents of Nevada last year and from correspondence directed to Utah, Colorado and Idaho is the rule in the States mentioned and should prevail in the dry valleys of our State owing to similarity of the air borne pollens.

Footnote—Cut No. 1 in April issue should be Cut No. 12; Cut No. 2 in April issue should be Cut No. 1; Cut No. 3 should have been put in April issue under Vaso Motor Rhinitis, case reported A. J.

It has been interesting to note that red top has occurred only three times and timothy twice, and in these cases both grasses have been known to thrive in the locality of the patient's residence.

In a fair number of the cases timothy has been tried and also grasses known to be in the patient's locality, while no reactions occurred from foreign ones. This also has proven to be the case with the chenopods, ambrosias and artemisias. Quite naturally, from such results, I feel that I must differ from Dr. Goodale and other investigators in the Eastern States and particularly the drug houses engaged in the exploiting of certain pollen vaccines, "that reaction from timothy for instance will give reaction to all grasses." It is no doubt true that all grasses of a single tribe will react more or less to other grasses of that particular tribe but it is untenable to assert that all tribes are similar.

In this contention I am upheld by Professor H. M. Hall, the head of the Department of Botany, University of California, who has so ably aided and advised me in my various investigations of the subject.

As to the method of testing, I have adhered to the method of skin tests advocated by Dr. Goodale, i.e. making a series of short cuts on the forearm 1-8 in. long and from 1 to 1½ in. apart, using alcoholic solutions. I am unable to see the advantage of the ocular tests, nor the interdermic injections with a fine needle, as advocated by Dr. Robt. A. Cooke. Cooke's method no doubt might occasionally develop reactions not found by the open cut method, but it is a time-consuming method and not adapted at all to the problems in the Western States, where the flora occurs in numbers so much greater than in Eastern States.

Of the hay fever cases, seen during the year only four cases of definite gland deficiencies were worked out.

In all cases, however, low blood pressure, from 100 to 115 was found, besides, subnormal temperature and pulse and a general complaint of more or less asthenia. This is suggestive to say the least.

I should like to report the following cases from those seen during the year because of the varied and interesting features shown.

Mr. L. from Pocatello, Idaho, consulted me in April, 1918. History as follows: Mother has had hay fever and asthma badly. He has had hay fever for seven years accompanied by severe frontal headaches. Attacks begin about April 1st and last until almost December 1st. Is subject to many colds and infection. Has had tonsils and appendix removed; teeth O.K. Plates show involvement of R. frontal and antrum. Irrigation of antrum through normal opening shows pus. He was tested with 19 pollens, 4 of which were positive (grasses, giant rye, red top, sudan, salt grass). He was negative to animal hair, feathers, and 40 foods. Frontal sinus and antrum opened and drained. Eight weeks after pus in incision of frontal due to unabsorbed chronic gut. Given pollen solutions at irregular intervals. Was re-

ferred to Major Moffitt for further examination. Moffitt's diagnosis pituitary and thyroid insufficiency. Moffitt finds him "with rather erratic nervous temperament, apt to have times when he can do little and feels tired out and then spells when he can work intensely. Has periods of depression without cause, coming quickly and ending quickly, lasting two or three days ever since childhood. Sometimes a little tendency to fortification spectrum but with these no scotoma." He complains of a good deal of frontal headaches.

His frontal and other sinus troubles have been cleared up and the continuation of his queer headaches must be looked upon as due to circulatory disturbances, depending on the glandular insufficiencies.

It will be interesting to see if continuation of his ductless gland therapy without any further attempt to use pollen solution prior to the hay fever season of 1919 will stop his hay fever seizures. Should he have attacks of hay fever, the pollen solutions will be immediately resumed.

COMMENTS.

Referring back to the rather long list of pollens to which our group of cases were sensitive, and comparing it to that of various drug houses engaged in exploiting "hay fever" vaccines throughout the entire country, we are immediately struck with the dissimilarity in the botany of the *East* and *West*.

It is not commercially attractive for these drug houses with the possible exception of *one*, to put out solutions of value in the Western States, and it is therefore self-evident, if any physician really desires to benefit his hay fever patient he must pay attention to the botany of the patient's district and not shoot "stuff" haphazard into people, knowing, if he will only think, that it can do little if any good.

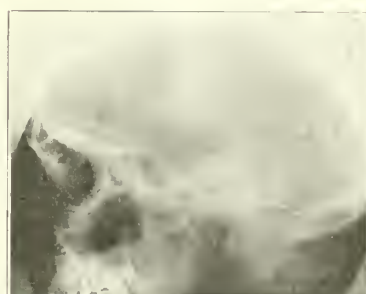
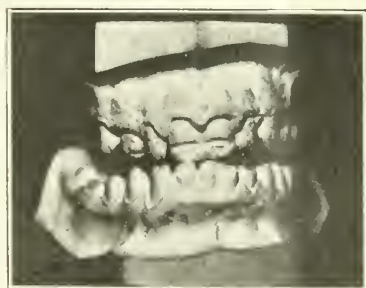
CONCLUSIONS.

That the use of pollen solutions chosen from the list of the botany growing in the patient's locality and after careful testing of the patient to determine the offender or offenders is of *very great* value in the warding off of seasonal hay fever.

That its permanent curative value is for future determination. In the effort to obtain this focal infections should be removed to be supplemented if necessary by ductless gland therapy.

In approaching the asthma side of the subject, I do so with a feeling of trepidation because so many excellent articles have appeared in American literature especially those of J. Chandler Walker of the Peter Bent Brigham Hospital of Boston and Robert A. Cooke of New York. It is to Dr. Walker and his co-workers that the principal credit is due for the best of the work published in the past eighteen months, and for putting on a sound basis the methods of making the tests which are the only means of differential diagnosis as to etiology in this distressing symptom-complex.

Cooke has given us the best schematic outline as an aid in the work as follows:



"ETIOLOGICAL CLASSIFICATION OF BRONCHIAL ASTHMA."

1. *Anaphylactic*: Protein absorption from,
 1. Respiratory tract,
 - (a) Animal emanations, dander.
 - (b) Vegetable emanations, pollens, satchet.
 2. Intestinal tract,
 - Foods.
 3. Foci of infection.
 4. Subcutaneous tissue or intravenous injection.
 - Therapeutic serums.
2. *Non-anaphylactic*:
 - Thymus enlargement,
 - Tuberculosis,
 - Renal disease,
 - Cardiac disease,
 - Bronchial infections, acute and chronic,
 - Reflex bronchospasm.

The latter group includes physical exercise, overeating, inhalation of irritating vapors and dust and atmospheric and barometric changes.

Walker illuminates and simplifies the schema for the student worker by stating that "The age at the onset of asthma is very important," during the first year of infancy should lead one to suspect milk, second year, eggs, cereals and wheat flour, frequently bacteria.

Between the ages of two and twelve the foods decrease and bacterias increase and animal hair and pollen come in. From childhood to forty bacteria, animal hair and pollens. From bacteria we are to understand acute infections, i.e. bronchitis, more commonly resulting from focal infections located principally in the nasal sinuses and tonsils.

I rather hesitate to present such a small group, some fifty cases, seen during the past twelve months, but as they express a varied etiology and have been associated with many discouraging moments in their study, I feel that it may be of some aid to other workers, beginning as I have to study asthmatic problems. Hoping therefore, that out of it all, something may be demonstrated to help this class of sufferers *particularly* children.

Of this group, 52 in number, 14 were anaphylactic, 10 due to animal hair, (9 horse dander and 1 dog dander) two to bacteria, one to food, two to pollens. Of the remaining cases one definitely tubercular with cavities in the lungs, associated with recurring infection from an antrum, relieved by vaccines; one probably in the class of pre-tubercular and having the asthmatic breathing in only one area of the right lung.

The other thirty-six should be classed as "asthmatic bronchitis associated with colds." Thirteen of these had one or both antra involved with ethmoiditis associated once and frontal sinuses once, teeth and tonsils infection found in several.

Twenty-two gave signs of endocrine disturbances, six thyroid predominating. 15 hypo-pituitary, one probably status lymphaticus. Gland disturbances in the other thirty cases were not searched for because my interest had not been thoroughly aroused to that phase of the subject prior to six months ago.

PITUITARY CASES.

The particularly interesting and striking feature of those where pituitary signs predominate, is the relationship of anaphylaxis to pituitary disturbances. This is present in those reacting to animal hairs, foods, bacteria. Also in those where the type of colds seems to be *anaphylactic* rather than bacterial.

Likewise in all, where stereoscopic X-ray pictures have been taken of the *sella turcica*, there appear to be departure from the normal measurements as laid down by Schuller in "Roentgen Diagnosis of Diseases of the Head."

Another interesting feature of the anaphylactic cases is the chest findings as shown in the X-ray stereoscopic pictures. Here as a rule normal readings are made in contradistinction to the peribronchial thickenings commonly found in the class of so-called "asthmatic bronchitis," or infective types.

From this group I should like to give the histories more in detail as follows:

Case 1. Chas. C., age 9½ years, seen April 1st, 1918. No history of asthma except great grandmother who had a little late in life. Mother and grandmother (mother's side) had dry scaly skins (ichthyosis) from childhood until puberty when it disappeared. Mother still some signs of slight hypothyroidism. The patient showed thyroid insufficiency as an infant of 6 months. First attack of asthma at 8 months and at 20 months attacks lasting two to three days. They kept recurring at intervals until 5 years old, when a change to a northern climate gave him freedom from attacks for two years. The attacks since have been at intervals, but always associated with colds and bronchitis, tonsils and adenoids removed some years ago. He was tested with 59 food proteins, animal hair and feathers; all negative. Further examination showed thinning of the outer third of the eyebrows, hair dry, skin dry and scaly, constipation, cold feet, had enuresis when younger spaced front teeth. (Thyroid has been recommended earlier in life.) Has been taking thyroid up to 3 grs. daily for 6 months. Child seen in August this year, better in every way especially the ichthyosis but mother reported that he had an attack late in June when in the woods and near certain shrubs. He was then tested with the following pollen solutions: Kentucky blue grass, broncho grass, canary grass, timothy, wild oats, salt grass, orchard grass, English plantain, daisy, elderberry, California walnut, dandelion, western ragweed, mugwort; all proving negative. He may possibly have been sensitive to some other pollen unknown. The thyroid was continued and possibly post hypophyses may be recommended next year.

Case 2. H. B., age 6 years. Asthma commenced when two years old following bronchitis. Had three attacks a year until tonsils were removed two years ago. Mother was told he had climatic asthma and so went to the San Joaquin valley, where he was free of attack until he was brought back to San Francisco in August, 1917, three attacks since. Was tested with 29 foods, animal hair, feathers and staphylococcus, all negative. No focal infection. Urine and sputum negative. Skin bluish, cold to the touch. Has dry upper lids, puffy, protruding abdomen, mouth open (although adenoids and tonsils out) eyes dull, mind dull, in fact he looked generally foolish. No history of hives or constipation but had enuresis. He was put on thyroid gr. 1-8 daily, increasing every 3rd day, 1-8 gr. He kept increasing dose until at present is taking 2 grs. daily. The improvement

has been quite marked. No asthmatic attack since, the chest had "squeaks" on several occasions. Has had two or three colds in past 7 months but no asthmatic attacks. When last seen Nov. 5th the boy had grown fully 3 inches, color of skin and dryness about normal, hardly any rales in chest, activity of mind vastly improved and appearance (brightness of face) decidedly different. No change in the nocturnal enuresis.

Case 3. C. P., age 8, height 4 ft., 1 in., weight 52½ lbs. Has had asthma since 14 months old following bronchitis. Father had asthma as a boy, in fact was practically bed-ridden until 14 years old. From 14 to 40 no asthma. Three years ago got an attack. No asthma on mother's side. Brother has hives. Had eczema when 3 months old, which cleared up to be followed by asthma. Present attacks accompanied with herpes around the mouth. Her tonsils and adenoids were removed two years ago. Cannot ride behind a horse or come near a cow without having an attack of asthma. Has a very low sugar tolerance. Loses her voice within a few minutes after eating "marshmallow"; eggs and walnuts upset her; her attacks are worse during the pollination season of grasses. She fatigues easily and is easily excited. Mentally is precocious for her age. She has spaced front teeth (central incisors); her skin is dry and arms and legs quite hairy. Her back is covered with fine hair 1½ inch long from back of neck to the small of her back. Her differential blood count is haemoglobin 70%, R.B.C. 4260000, W.B.C. 14490. Poly 24%, large lymph. 2%, small lymph. 71%, Transitional 2%, Eosinophiles 1%, Urine normal, Temp. subnormal, pulse 88. Of the pollens she is sensitive to 5 grasses; of the foods, corn and walnut positive; of the animal hairs, horse dander positive.

The chest picture shows some peri-bronchial thickening on the right side and her asthmatic breathing is principally on the right. The sella distinctly large and coupled with the teeth signs and the lessened sugar tolerance suggests fairly definitely post pituitary changes, the dry skin to thyroid and the excessive hair growth to adrenal. The whole case suggests a poly-glandular insufficiency with the pituitary predominating. Her treatment will consist of a desensitization to the horse dander and pollens combined with pituitary feeding plus the other gland substances later on.

Case 4. DeW. R., age 17, resident of Fresno. Mother asthmatic. Has had hay fever 4 or 5 years, attacks all year but worse in Spring. Asthma always follows colds. During attacks unable to sleep or climb stairs. Tonsils have been removed. Nothing in nose. Chest picture normal. Was tested with 23 pollens and found sensitive to salt grass and orchard grass. Negative to all foods, feathers, animal hair and tuberculin. Asthma is therefore permanently associated with pollens. He has no ambition, fatigues easily. Head aches very frequently, pupils well dilated, subnormal temperature, pulse 90. Skin very delicate white and thin, pubic and axillary hair distribution normal, none elsewhere on body, little showing on face. Looked upon as a slight hypo-pituitary and hypo adrenal subject, he was given ½ c.c. hypophysics and surrenal weekly. This he has had for two months with a generally definite improvement. No asthma in spite of one or two slight colds. Sleepiness gone, fatigue neurosis much improved. He has been asked to discontinue injections for a period of weeks to see how long the improvement will last.

Case 5. Ernest W., age 16. Constant colds and sneezing for 4 or 5 years accompanied by asthmatic breathing. There is no asthma in his family. His tonsils are O.K. Some secretion in middle meatus of left nostril. His palatal arch is high. Enamel from several teeth partly absent, especially central incisors. He has a long thorax, broadened pelvis. Pubic hair feminine type, sex organs normal. Has no hair on body or in axillae.

Scapulae winged in bending forward. Has no excessive desire for sugar; loses "pep" only when has a cold. Blood examination nothing except very high eosinophiles 11%. The young man's general findings suggest from his teeth a tetany though he gives no history of spasms. The loss of calcium salt from the enamel probably is best explained on the basis of a para-thyroid deficiency. From his general appearance "Ewings" type of "status lymphaticus" except that the change in the sella which makes one include the pituitary in the glandular insufficiency picture. He has been referred to Dr. Kruse for further study and treatment with the recommendation that nothing be done surgically for the present and that he be given a prolonged treatment with gland substance to see whether the local infection in the nose will improve along with his general condition (lack of resistance).

Case 6. R. C., age 24, consulted me in January, 1918. Family history: father had hay fever, uncle asthma, grandmother on father's side gout. Mother's side no history of hay fever or asthma. Personal history: asthma since two years of age; was told that he used to have large hives on his legs after riding a pony when a child. Had fully 15 attacks yearly, which lasted from 7 to 10 days. Attacks frequently associated with bronchitis. Had pneumonia two or three times. Has tried all climates in different parts of the world; has had many physicians and has been given every remedy believed to influence asthma without result. Tonsils removed in 1910. Noticed that he was comparatively free of asthma at the sea shore, but always choked up and had oppression in chest whenever in city. Finally concluded it was associated with horses.

Examination of nose showed a badly deflected septum, no evidence of sinusitis, had a high arch and front teeth crowded and irregular. Lower jaw of the overshot type. X-ray shows peri bronchial thickening and should be considered a negative plate.

He was tested with 59 foods, cat, dog and horse dander. Slightly sensitive to cabbage, canteloupe, radish, carrots, asparagus and spinach. He gave a tremendous reaction to horse dander solution ¼ in. to 1 in. with a 3 in. red zone about the hive. He was first injected with the alkaline meta protein solution 1:100000. After possibly five injections the change was made to the total dander solution 1:100000. The injections being given at weekly intervals in 3, 5, 8 and 12 drop doses; then the same procedure with the 1:10000 and 1:1000 solutions. These injections were carried on for a period of months with occasional lapses of 10-14 days without injections and during this period he had one or two slight attacks of asthmatic breathing. The net result was encouraging so far as the asthma was concerned, but not until the injections were taken without a break in the 5-day period, did it appear that we might control the chest oppression. We found however, about the first week of May that this disappeared and by the end of May his skin reaction was practically negative to all solutions. The young man, who had been unable to either go to college or enter any business, took a position as a roustabout in his uncle's shipyard in Seattle. He has had one severe attack of bronchitis with high temperature and asthma which lasted 10 or 12 days. He is taking his dander regularly. Whether this solution will finally overcome his cold catching tendency or whether his immunity can be lifted up still further with ductless gland therapy is a problem for the future.

The interesting side of this case is that he has improved under the use of horse dander solutions and it is the first time in his life that he has been able to think there was a place in the world's activity in which he might be of use.

Case 7. Mrs. O. W., resident of Nevada, age

44. Seen in February for asthma summer type. Father died of apoplexy at 72, mother from puerperal fever, has had all children's diseases. Menstruation first at 16 years; at present menstruation very profuse. Was athletic during student days, but always fatigued easily. Her asthma commenced 15 years ago following the birth of a son and was aggravated by the least exertion. For several years past the attacks have occurred during June to September about 3 attacks a week. Is free from attacks during winter and spring months. The first severe attack following a drive behind horses. Tonsils were removed three years ago. She has a deflected septum and spaced front teeth and X-ray showed several abscessed teeth. Skin test showed her sensitive to 8 pollens and to horse dander. Blood pressure 100, subnormal pulse and temperature, eosinophiles 6%, urine normal. The focal infections were cleared up and septum straightened to improve breathing only. Injections of horse dander solution 1:100000 was commenced in April and pollen solution 1:200000 in March, 1918. Doses given at 5 day intervals for each, i.e. a dose every 3rd day for five doses, then stronger solution until 1:1000 solutions were used. These were carried through the entire season. She was entirely free for the season except one occasion in July when she had gone a number of days without an injection. The attack of asthma was "anaphylactic" due to too strong a dose, the immunity having declined during the days she had no injection. At the end of the season she developed a sinusitis and an infective bronchitis with some asthma. This cleared after washings of the antra. Two weeks after she complained bitterly of asthenia and was "all in" mentally and physically. Blood pressure low. She was now put on Choay's preparation of "hypophyse" and "surrenal" 7 minims of each, increasing the hypophyse to 15 drops. One hypo every five days and continued for a period of several weeks. I am able to report that the patient's general condition is much improved. She is able to work long hours for the Red Cross but notices that she begins to get weary about the end of the 4th day. It is interesting to note that the blood pressure continues good at the end of the 4th day, being 140 five minutes after injection.

No pollen or horse dander solution will be used prior to the patient's usual season for asthma this year, but the ductless gland treatment will be kept up at least until the asthma season is at hand.

The explanation of the freedom of winter asthma I believe is that then horse dander particles are not found in the atmosphere at the altitude of her home (over 5000 feet) during the winter season. The reaction from the dander was more severe than the pollens, which suggests that the pollens were not the most important factors in the asthma.

Case 8. George S., age 46 years, was referred to me to see if his asthma was due to any infection in his nose or tonsils or to pituitary changes. His history is as follows: Has had asthma since 1915 following grippe. Has had considerable sneezing with discharge from the left nostril and says he had an acute sinusitis six months ago. A strip was removed from the inferior border of both lower turbinates some months ago which improved his breathing somewhat. There is no asthma in his family. During the past year his asthma has recurred frequently and for the three weeks prior to seeing me and following three injections of influenza vaccine it has been continuous. His examination developed the following: Weight 198, height 55½, blood pressure 130, temperature 97.4, pulse 84. No special fat deposits. Short square fingers, spaced front teeth. Body very hairy, especially on arms and chest. Tires easily, perspires readily. Has occasional headaches. Frequent nose bleeds from the age of 14 to 40.

Sexual capacity active from 14 to 40. Eats quantities of bread and butter. Tonsils have a little cheesy material. The tubercle septi very sensitive to probing. Turbinates whitish in color and boggy. X-ray of sinuses shows thickening of the antral floor. Irrigation of antra, slight amount of mucus. X-ray of sella shows rather wide and deep. His blood count is as follows: Haemoglobin 85%, red 4,168,000, white count 8,400, polys 85, lymph. 15, eosin none. Tested with the following foods: peas, beans, white and sweet potatoes, corn, barley, rice, rye, oats, wheat, milk, eggs staph. strep. influenza, micrococcus cat; all negative. He was advised to enter hospital to have his blood sugar content determined and to undergo a course of pituitary feeding and later on to have his focal infections cleared up if still present.

RESULTS OF TREATMENT.

Horse dander cases: Of those associated with pollens, two had complete relief during the season, one now being treated with a French preparation of "post hypophyse" and surrenal hyperdermically at 5-day intervals. Two have been entirely relieved.

One is entirely free from oppressed breathing, which has always bothered him when in city, but he has had two severe attacks of bronchitis with high temperature and asthma. His horse dander solution will be continued over a period of months.

One is associated with foods, has had no attack in seven months except traceable to corn to which he was sensitive.

One under treatment, so far no trouble except from overdose when asthma lasting four days resulted.

One improved, patient lives a distance and other factors have not been worked out. The dog dander case was relieved for several months but had asthma on two or three occasions following colds and relieved with vaccines.

THOSE UNDER DUCTLESS GLANDS.

One has had one attack in six months, two have had no attacks, one under the care of another physician, two passed from observation, eight have delayed treatment.

OF THE BACTERIAL CASES.

One relieved by large doses of staphylococcus to which he was sensitive and the removal of his tonsils and draining antrum. The other bacterial case is still in the testing stage and therefore no treatment undertaken.

OF THE FOCAL INFECTIONS.

Six have been operated, four relieved, one still under treatment, one not benefited.

It will therefore be seen that hardly sufficient time has elapsed since most of this series of asthmatics have been under observation to come to definite conclusions regarding results of treatment, but judging from recent reports submitted by Cook (N.Y. Med. Journal, March 30, 1918), Chandler, Walker and Rackemann (Arch. Internal Medicine, Oct., 1918), of cases strictly anaphylactic in type (with practically only 7% failures) the work holds out great promises for its continuation. If the work mentioned in Hofrendahl's article (reflex neuroses) carried on in Von Noorden's clinic (by Bartelle, Falk and Schweeger)

who experimentally established that substance heightening the vagatonus, produces a neutrophilic-cosmophilic blood picture and they used hormones in their experiment, is produced by other observers, it will go a long way towards conclusions regarding the *large* class of "asthmatic bronchitics" whose resistance to infections is below normal and who may show an ill-defined picture of endocrine gland disturbance.

In searching for the cause of vaso-motor disturbances of the upper and lower respiratory tract, it seems to be worth while to bear in mind the influence of the autonomic or para-sympathetic nervous system in the nasal and bronchial neuroses and with it in view reproduce the following cut shown in my article on "vaso-motor disturbances" published in April, 1918, which illustrates the origin and distribution of the autonomic and sympathetic fibres.

One cannot leave this interesting subject without suggesting the need of careful investigation of those organs supplied by the lower end of the picture and to recall the great influence of *dysfunction* of these organs on neuroses, nasal as well as general

ADDENDA.

The question of the ductless glands has been brought forward because we cannot see all cases belonging to the different groups mentioned in this paper, cured entirely by the removal of focal infections plus the injection of various protein solutions. And, while we admit that very many cases may not be benefited by the administration of gland products by mouth or hyperdermically, especially in adults, we feel the recognition of gland deficiency among children particularly, who exhibit ataxia of the vaso-motor system and in whom the suggestions presented in this paper are followed out, may ultimately be put in the class of cured cases who otherwise might be doomed to grow up as defectives variously classified.

Bibliography.

- McKenzie, John M.: "The Physiological and Pathological Relation Between the Nose and Sexual Apparatus of Man," Johns Hopkins Bulletin, Jan., 1898.
 Pfingst: "Paroxysmal Sneezing," Miss. Valley Med. Journ., April, 1917.
 Hofrendahl: "Some Studies on Nasal Reflex Neuroses," Hygiea Bd. 80, 1918.
 Levv, Leopold: "Slight Hypothyroidism," Practitioner, Feb., 1915.
 Cunningham: "Ductless Glands in Dermatology," N. Y. Med. Journ., Jan. 19, 1918.
 Cohen, Solis: "Notes on Three Uses of Pituitary Not Generally Known," St. Paul Med. Journ., July, 1914.
 Heimann: "Relation of Internal Disturbances to Dermatological Conditions," Medical Clinics of North America, July, 1918.
 Tucker: "Pituitary Disturbances with Relation to Psychoses of Adolescence," Journal A. M. A., Aug. 3, 1918.
 Barker: "Nervous and Mental Symptoms in Exophthalmic Goitre," Journ. A. M. A., Aug. 3, 1918.
 Walker: "Diagnosis of Pituitary Disorders," Interstate Med. Journ., Sept., 1917.
 Lankford: "Biological Law and Human Health," N. Y. Med. Journ., April 27, 1918.
 Boston: "Hypo-pituitarism," N. Y. Med. Journ., Oct. 30, 1915.
 Goetch: "Relation of Pituitary Gland to Female Generative Organs," Am. Gynec. Society, 1917.
 Crile: "The Kinetic Drive," Journ. A. M. A., Dec. 18, 1915.
 Starr: "Neuroses Dependent Upon Errors of Internal Secretions," Med. Review, June 29, 1912.
 Woodbury: "Vegetative Nervous System from Clinical Standpoint," Boston Surgical Journal, Nov. 15, 1917.
 Pottinger: "Relation of Pulmonary T. B. to Vegetative Nervous System," A. M. A., 1917.
 Pottinger: "Relation of Syndrome of Anaphylaxis to Vegetative Nervous System," N. Y. Med. Journ., Aug. 18, 1917.

- Kendall: "Relation of Thyroid to Other Ductless Glands," Journ. Lancet, Dec. 1, 1917.
 Zubelin: "Pituitrin and Adrenalin Injections in Hay Fever," N. Y. Med. Journ., July 13, 1918.
 Zubelin: "Treatment of Asthma with Pituitrin and Ephinephrin," Med. Record, July 7, 1917.
 Schadle: "Antrum of Highmore as Etiological Factor in Hay Fever," Medical Record, May 25, 1907.
 Schadle: "Relation of Antral Sinusitis to Hay Fever and Asthma," St. Paul Med. Journ., June, 1908.
 Richardson: "Vaso Motor Disturbances of Upper Air Tract," Laryngoscope, Aug., 1911.
 Beck: "Relation of Chronic Infection to Thyroid Deficiency," Southern Medical Journal, July, 1918.
 Tucker, Beverly: "Preliminary Discussion of Pituitary Disturbances as Related to Epilepsy, etc.," Southern Med. Journ., Aug., 1914.
 Vincent, S.: "Experimental and Clinical Evidences as to Influence Exerted by Adrenal Bodies on Genital System," Surg. Gyn. and Obs., Sept., 1917.
 Jackson: "The Autonomic System as an Integrator with Reference to Uro-Genital Organs," Surg. Gynec. Obst., Sept., 1917.
 Walker: "Causes of Asthma," Clinics of N. A., Jan., 1918.
 Walker: "Asthma," Journal Med. Research, 1917.
 Walker: "Treatment of Bronchial Asthma with Proteins," Archives of Internal Med., Oct., 1918.
 Walker: "Bronchial Asthma," Journal A. M. A., Aug. 4, 1917.
 Rackenman: "Clinical Study 150 Cases Bronchial Asthma," Arch. Internal Med., Oct., 1918.
 Harrower: "Shell Shock," Prescriber, Oct., 1916.
 Baruch: "Asthma and Anaphylaxis," N. Y. Med. Journ., Jan. 21, 1911.
 Fruedenthal: "Bronchial Asthma," N. Y. Med. Journ., Jan. 6, 1917.
 Morris: "Bronchial Asthma," Med. Journ., Aug. 4, 1917.
 Talbot: "Asthma Children—Egg Poisoning," Boston Med. and Surg. Journ., Nov. 5, 1914.
 Talbot: "Asthma in Children," Boston Med. and Surg. Journ., Aug. 10, 1916.
 Talbot: "Asthma in Children and Its Treatment," Long Island Med., July, 1917.
 Findley: "Treatment Bronchial Asthma Vaccines," Georgia State Journ., Feb., 1917.
 Brown: "Tuberculosis and Asthma," Southern Western Med., Nov., 1917.
 Geyser: "Successful Treatment of Asthma," Am. Med., April, 1917.
 Tracy: "Bronchial Asthma and Its Curability," N. Y. Med., Jan. 27, 1917.
 Iskowitz: "Innumization with Autogenous Proteins in Bronchial Asthma," N. Y. Med. Journ., Nov. 6, 1917.
 Abt: "Asthma in Children," Clinics of No. Amer., March, 1918.
 Cooke, Robt.: "Hay Fever and Asthma," N. Y. Med. Journ., March 30, 1918.
 Scheppegrell: "Treatment of Hay Fever by Pollen Extract and Vaccines," N. Y. Med. Journ., June 1, 1918
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TUBERCULOSIS A GOVERNMENT PROBLEM

"Tuberculosis is another widespread evil which can not be successfully contended against except by educational processes through the combined efforts of the national, state and municipal governments intelligently directed to overcoming the general ignorance of the common people on this subject. The medical profession and private philanthropists have taught how to reduce sickness and mortality from tuberculosis, and so to put an end to the great impairment of national prosperity and private happiness caused by this disease; but only the public treasuries can pay the cost of carrying on an active and comprehensive campaign against this deep-seated evil. The National Government has made some successful efforts to abate, during this 19 months' war, the hideous evils of alcoholism, tuberculosis, and venereal disease, and every effort in this direction should be continued and developed now that the war is over. The states and municipalities should join in this effort; and it is the duty of every educational force in the country—universities, colleges, technical institutes, school boards, medical schools, and normal schools—to join in remedying in the rising generation the physical and mental defects from which they are suffering, and in delivering the coming generation from diseases of vice and ignorance from which their predecessors have suffered so intensely. In so doing they will be striving to eradicate defects in American education which have been emphasized by the war, though antedating

it."—Charles W. Eliot on "Defects in American Education Revealed by the War," School and Society, January 4, 1919.

Although little or nothing is known regarding the cause of the influenza epidemic which recently spread such havoc broadcast through our nation, yet a few things were learned in connection with its treatment which should prove beneficial in handling a similar epidemic in the future.

The advisability of establishing temporary hospitals was soon very apparent, says Lieut-Col. Philip Schuyler Doane, writing in *The Modern Hospital* of the influenza situation among shipyard workers. The mortality rate in the private home of the employee was much greater than that among those who were cared for in the temporary hospitals, and this fact proved a strong argument in favor of establishing these hospitals in various parts of the country even before the epidemic reached them.

It was also discovered that hospital accommodations must be adequate enough to give more than the ordinary allotted bed space, that the pneumonic type of patient must be separated from the simpler variety, and that the beds must be partitioned off in such a way as to screen one patient from another. Free ventilation and abundant sunlight were found to be very necessary, and, as a result, partitions between beds were made by using compo board, carried to a height of at least six feet. Hygienic conditions were given careful attention, disinfection being carried out everywhere. The common drinking cup was absolutely abolished and all eating utensils carefully sterilized. In fact, it was discovered that prevention was half the battle, and, by keeping down the number of cases to be treated, those in hand could be given greater emphasis and more careful attention.

Because air is a free commodity it is often not appreciated at its true worth. But its value was never more decisively demonstrated than in dealing with the recent Spanish influenza epidemic. The handling of the disease was largely experimental, and among the many treatments attempted was that of open-air. The first tent hospital for the treatment of influenza cases was established by the recruiting service of the United States Shipping Board with the aid of the authorities of the State of Massachusetts. Out of the five or six thousand men in training who were crowded into five ships stationed in east Boston, about 1,200 cases of influenza and pneumonia developed. The tent hospital took over 351 of the 1,200, and of this number but 36 died. When the reports from autopsies showed that a diminishing of lung area was simply drowning the patients, the treatment immediately sought to counteract this condition by giving the patients as much air as possible. Consequently, on pleasant days they were moved out into the air and sun.

Marked improvement in most cases took place at once. Practically without exception, after a day in the sunlight, temperatures were lower at night than they had been in the morning. Encouraged by this discovery, the physicians took heart and fought still harder, with the result that as stated in *"The Modern Hospital,"* great numbers of the patients not only recovered, but returned to duty on the ships sunburned after such a serious illness.

EMPLOYEES' HEALTH PAYS.

Medical work among employees is daily assuming a greater importance, and the day is not far off when a health welfare department will be an essential feature of every industrial establishment. A progressive step in this direction has been taken by the Colorado Fuel and Iron Company, which shows in its latest annual report, a total of 139,057 cases treated within the last year. The staff of this very modern medical department says *"The Modern Hospital,"* includes surgeons, internists, neurologists, dentists, a pathologist, an obstetrician, an anesthetist, a chemist, and a large corps of nurses. Wassermann tests are made as a routine in all cases admitted to the hospital. Increasing attention is being given to the care of the teeth, for it has been discovered that employees who are suffering from toothache and are poisoned until half sick are unable to do their work satisfactorily, with the result that they lose time and are apt to meet with accidents on account of lack of mental alertness. In addition, aching, infected and deformed feet, clad in ill-fitting shoes, will never give 100 per cent. efficiency, and this particular phase of treatment is also receiving particular attention. Everything that tends to promote physical perfection is given consideration, for the war has proved that the working man, even as the soldier, must be examined from head to foot and kept fit for the fight.

United States Government says "drink milk." From the official bulletins of the Food Administration: "Use all the milk supply. Use buttermilk. Give the children plenty. It has in it something special which they must have to grow. Save on other things, if you must, but not on milk."

No milk is richer and more wholesome than that of the milk goat. The public, in general, is beset with the utterly false notion that goat's milk has an offensive odor. The public has acquired this notion through its encounters with buck goats. If bucks are kept away

from the females, there is rarely, if ever, any noticeable odor in the milk. Furthermore, goat's milk means milk with the microbes left out. It has never been known to contain tubercular germs, and it is, therefore, the most wholesome milk for family use. Scientists have determined that at an altitude of 2,000 feet there are no germs of any sort. To this fact and to its extremely cleanly habits may be attributed the sound, rugged health of goats, for the domestic animals we know today originated from wild mountain goats living high up out of the germ belt of the world.—N. Y. City Department of Health.

The Division of Venereal Diseases in the U. S. Public Health Service was created in July, 1918, as a section to the "army bill," an appropriation of \$4,000,000 was made for the campaign to control venereal diseases. This sum was made available from July 1, 1918, during two fiscal years. One million dollars was to be immediately available for State boards of health throughout the country, apportioned on the population basis. The same sum will be available on July 1, 1919, but on the condition that each State raises a sum equal to its apportionment. This condition was not imposed for 1918.

One million dollars is at once available to assist various States in caring for civilian persons "whose detention, isolation, quarantine, or commitment to institutions may be found necessary for the protection of the military and naval forces of the United States against venereal diseases."

For scientific research to discover more effective medical measures in the prevention and treatment of venereal diseases, one million dollars is appropriated; for the discovery and development of more effective educational measures in preventing venereal diseases and for related sociological and psychological research, \$300,000 is appropriated. For a Division of Venereal Disease in the Public Health Service \$200,000 is available and \$100,000 will be used for the expenses of the Interdepartmental Social Hygiene Board, provided for in the bill and composed of the Surgeons General of the Army, Navy and Public Health Service.

THE INFLUENZA EPIDEMIC IN STUDENTS' ARMY TRAINING CAMP, LOS ANGELES*

By GEORGE H. KRESS, M. D., Los Angeles.

In the United States about 170,000 college students were enlisted as privates in the United States Army, and these students were grouped in some 500 different American colleges; each of these different college soldier units being known as a Students' Army Training Corps.

At the University of Southern California, the Students' Army Training Unit comprised some 919 enlisted men; and in command were two Colonels, and a staff of some 20 other line officers of the U. S. A. The Medical Staff consisted of six surgeons.

The physical examinations for admission were going on through the first week of October, when the first influenza cases made their appearance in the corps. At that time, the U.S.C.-S.A.T.C. barracks and mess halls at Exposition Park had not reached completion, so that most of these 900 men were living either in their homes or were boarding in different parts of Los Angeles.

As stated, the physical examinations were still going on when it was found necessary to start a sick call for the ambulant sick, and then in a day or two, it was necessary to call on the men who were conducting the examinations, to visit a goodly number of men who were reported sick at their homes.

The number of sick enlisted men who were boarding made it necessary to provide some kind of hospital accommodations, and a two-story frame residence was rented; and blankets and army cots installed, and with no trained nurses or other help, a beginning was made in the way

*Read before the Los Angeles County Medical Association, December 3, 1918.

or a hospital. The little temporary hospital filled up almost over night.

In quick succession, as fast as they could be emptied and gotten into form, three of the buildings of the L. A. Medical Department, U. of C., were emptied, then filled with cots, and then with patients. In less than a week an institution of over 160 sick patients had come into existence, with a big nursing personnel, and a guard and fatigue detail of several hundred soldiers to do a certain amount of the drudgery, because at that time we did not have authority from the War Department at Washington to hire civilians to do the kitchen and similar work.

There were about 150 men who contracted the disease before the hospital accommodations were adequate, and these men were treated in their homes by private physicians in civil practice.

In the Base Hospital a total of 353 patients have been admitted, but 72 of these did not have influenza, so that we dealt in that hospital with 281 patients who had influenza. Of the 72 patients who did not have influenza, 22 were small-pox vaccination and triple typhoid lipo-vaccine inoculation reactions, the others being there for miscellaneous conditions.

The 281 influenza patients noted included 2 surgeons, 2 line officers on duty at the hospital, and 20 women nurses. In addition, out of some 300 soldiers, who were on duty at different times, a total of some 30 men contracted the disease at the hospital. No preventive influenza vaccines were used because the Medical Department of the Army did not provide or authorize the use of such. Masks were worn by the hospital personnel, and the usual prophylactic measures were ordered to be observed.

Among the 150 U.S.C. men who were sick in their homes, and who were treated in private practice, there were five deaths.

Among the U.S.C. men who were in the two hospitals, there was one death at the Branch Hospital, where 39 patients were treated, and three deaths at the Base Hospital where 281 influenza patients received treatment. The three deaths at the Base Hospital were all from dentistry students, who contracted the disease a day or two after a down-town peace parade. Practically all of the men who died in the hospital died with pneumonic complications.

Out of 281 influenza patients treated at the Base Hospital, 237 patients showed influenza of the so-called bone and muscle type. In twenty-three gastro-intestinal symptoms predominated, and in twenty-one pneumonia of the frank type was the dominant feature. In three the cerebral symptoms were prominent. In almost 200 of these patients, the pulmonary symptoms, that is symptoms of bronchitis, etc., were very marked.

As regards the methods of treatment, it was much like that in vogue in civil practice, special emphasis being placed on absolute rest in bed, and thorough convalescence. The value of absolute rest and thorough convalescence have been impressed upon as by the experience of camps in the East.

A rough outline of the mode of treatment would be somewhat as follows:

1. *Position of Patient:* Patient is ordered to bed, and is not permitted to go to toilets, etc., until temperature has become normal for three days.

2. *Diet:* While fever is on, light diet.

3. *Bed Clothing:* Should be ample. Patients should be instructed to keep arms beneath the covers, especially when sweating. Exposure of chest and arms is forbidden. Flannel pajamas are preferred. Wrists and ankles of same may be pinned snug.

4. *Temperature:* Temperature and pulse should be taken every three hours if patient is awake. When patient is seriously ill, temperature should be taken during the night also.

6. *Laxatives:* Upon admission the bowels are to be opened with castor oil or saline. After that cathartics only as ordered by the surgeon.

7. *Fever:* When patient is admitted 10 grains of aspirin with 3 grains of quinine are given every two hours until two or three such doses have been given. After that, the same dose is given every three hours, if the temperature is above 101. If temperature comes down again, the amount of aspirin and quinine determined by attending physician.

8. *Special Symptoms:*

(A) *Achings of muscles, bones, or joints:* When patient is admitted the aspirin treatment in lesser dosage is used; and in addition, the back and other sore tissues may be rubbed with a camphor-menthol or similar liniment.

(B) *Chest Tightness:* For this a mustard paste, one part of mustard to six parts of flour, is applied for twenty minutes, and this may be repeated every three hours or so if tightness continues.

(C) *Cough:* For the cough, inhalations of tincture of benzoin compound may be used as needed; no cough mixtures, or narcotics, except on orders from the attending physicians.

(D) *Gargle:* Mouths are to be kept clean, and throats treated with Dobell's solution.

(E) *Nose:* For the nose, weak camphor-menthol drops may be used. For repeated nose-bleed, pack the nostrils.

(F) *Drinks:* Hot lemonade and fruit juices can be given frequently. If desirable, a tablespoonful of whisky may be added to the lemonade.

(G) *Complications:* These are to receive treatment as per special orders from attending physician.

9. *Convalescence:* All patients are to remain in bed for three days after temperature has become normal. These convalescent patients can then be out in the hospital park for three days longer, provided weather is favorable. If fever returns after patient has been up and about in the hospital park, he is ordered back to bed for two more days, and then out-door privileges are again tried. Patients are then permitted to have a furlough of three days in their homes. At the end of this time they are to report to the attending surgeon at the morning sick call, who will deter-

mine whether they are to remain in quarters, or whether they are to return to "light duty" or to "full duty."

In conclusion, it is fully appreciated that there is nothing new in any of this, but it may nevertheless be of some interest, as showing the effects of influenza in a group of almost 1000 males at the viable age period, the majority at ages of 18 to 21.

Book Review

The Orthopedic Treatment of Gunshot Injuries.

By Leo Mayer, M. D., Instructor in Orthopedic Surgery, New York Postgraduate Medical School and Hospital, with an introduction by Col. E. G. Brackett, M. C. N. A. Director of Military Orthopedic Surgery. 12mo of 250 pages, with 184 illustrations. Philadelphia and London: W. B. Saunders Company, 1918. Cloth, \$2.50 net.

The aim of the writer is to restore the wounded soldier not only to health, but to useful activity as well. Col. Brackett introduces the book and welcomes it as a most timely contribution to the literature of military orthopedics. The volume discusses the treatment of injuries at the front, the base and the reconstruction center. The author strives to shorten the period of after treatment by early application of correct and mechanical appliances. He emphasizes the importance of functional rather than anatomical restoration. The industrial surgeon will find much value and instructive material in Dr. Mayer's little volume. A. G.

Principles and Practice of Obstetrics.

By Joseph B. LeLee, A. B., M. D., Professor of Obstetrics at the Northwestern University Medical School. Third edition, thoroughly revised. Large octavo of 1089 pages, with 949 illustrations, 187 of them in colors. Philadelphia and London: W. B. Saunders Company, 1918. Cloth, \$8.50 net.

As the author states in the preface, the entire book has been critically reviewed and many subjects have been amplified. The general arrangement is the same as in the second edition, and is most satisfactory from the point of view of both the student and the teacher. Newer methods are fully and fairly discussed and very conservative conclusions are drawn. This is particularly true of the chapter on obstetrical anesthesia, with reference especially to twilight sleep and nitrous oxide gas. The illustrations in most instances are exceedingly well done and the references at the end of each chapter are not intended to cover the literature, but add a great deal to the value of the volume. On the whole, this is a very satisfactory textbook for the student and a helpful and practical volume for the practitioner. H. A. S.

The Newer Knowledge of Nutrition.

E. V. McCollum. New York: Macmillan. 1918.

This little book sums up and interprets the results of years of patient work, work which is to be of incalculable value to the physician, the sociologist and the stock raiser. It is clear now that a diet may furnish an abundance of protein and energy; it may be easy of digestion; it may furnish a wide variety, including several seeds or their products, tubers, roots and meats; it may be pleasing to the human palate and yet it may fail utterly to support nutrition. We have long known the need for an adequate supply of protein; Mendel and Osborne showed us the importance of the various amino-acids making up the protein molecule; while Sherman and others emphasized the need for a balanced salt ration; now McCollum shows that we are absolutely dependent on a proper supply of two so far unidentified sub-

stances: fat-soluble A and water-soluble B. These are found largely in milk, butter, eggs and green vegetables. It is clear now that in attempting to cure nephritis, eczema, asthma, digestive disturbances, etc., we often put our patients on diets which, if closely followed, would sooner or later seriously disable or kill. McCollum shows how empty are the claims of sentimentalists that "Nature" furnishes us perfect foods in sealed packages and that all we have to do is to eat fruit and vegetables. No sensible man looking into this book would think of meddling with the diet of his fellows until he had thoroughly grasped the scientific principles therein described.

W. C. A.

Roentgen Diagnosis of Diseases of the Head.

By Arthur Schuller. 305 pp. St. Louis: Mosby. 1918. Price \$4.00.

This work is a valuable addition to the library of the Roentgenologist and the Diagnostician, fulfilling the needs for a well balanced text on this subject. The author has had the advantage of access to an unusual amount of normal as well as pathological material and descriptions of normal variations are given a prominent part in the volume. Primary lesions of the skull are adequately described but scant attention is given to the metastatic lesions. Injuries are given only a minor place. Of particular interest is the description of the changes from intracranial lesions and under this heading the normal variations of the sella are emphasized and some simple rules for differentiation of hypophyseal from extra sellar tumors are laid down. Case histories with reports of operations and autopsies form a no small part of the work, while the references to the literature are of great number. It is to be regretted that the illustrations do not, either in number or quality, measure up to the excellent standard of the text. L. B.

Neoplastic Diseases; A Text Book on Tumors.

By James Ewing, A. M. M. D., S. C. D. Philadelphia, London: W. B. Saunders Co. 1919.

The author has exceedingly well accomplished the object of his work which is to present within reasonable space and in acceptable form the main features of the origin, structure and natural history of tumors.

The book contains a wealth of information in regard to tumors and presents the subject from a thoroughly practical point of view. For this reason it is not only interesting to a specialist but should be of the greatest advantage as a reference book to physicians in practice. It covers the subject more adequately than any book that the reviewer is familiar with and can be thoroughly recommended as a trustworthy guide to this difficult and obscure subject.

Equilibrium and Vertigo.

By I. A. Jones. 444 pp. Illustrated. Philadelphia: Lippincott. 1918.

Price \$5.00.

This work is the most important contribution in English to the comparatively modern study of oto-neurology. It does not purport to be the last word in this study, but it has undoubtedly embodied all that is known of this subject. It is, moreover, presented in an orderly and practical way, so that it may be of great use to the general practitioner as well as the specialist. The important fact is well brought out that all vertigo is the result of a direct action upon the internal ear or its associated pathways in the brain. The day has passed when the general practitioner can dismiss the symptom "dizziness" with a few general remarks about the liver and some calomel. We know that it may be just as well an internal ear or brain lesion, which produces the effect. In many cases the final diagnosis of a brain lesion, and possibly its location, is arrived at by means

of the various ear tests. It is necessary to have these findings in every suspected case of brain lesion.

The suggestion that we have one branch of the vestibular nerve supplying the external semicircular canal and another branch supplying the vertical canals and pursuing a different pathway in the brain, is important and appears to be pretty well substantiated by Jones. If proven by future work to be true it will be a very valuable aid in localizing brain lesions.

An immense field for investigation and careful work lies before those engaged in otology, and this must be done in conjunction with the neurologist and general practitioner.

This volume should be in the possession of every physician. H. McN.

Text Book of Home Nursing. By Eveleen Harrison. 193 pp. 2nd ed. revised. N. Y.: Macmillan. 1918. Price \$1.10.

This book of Home Nursing will be a useful guide to those who, without much instruction, are obliged to care for their sick for the descriptions of procedures are clear and concise and should be easily followed. The book also contains directions for the first aid treatment in emergencies and recipes for preparing appropriate foods for invalid dietary.

Notes on Pathological and Operative Obstetrics. By Lyle G. McNeile. 215 Pages. Published by Division of Obstetrics, College of Physicians and Surgeons, Medical Department of the University of Southern California. Los Angeles: 1919. Price \$2.00.

An excellent handbook of pocket size. It is essentially brief and surprisingly complete. Each of the eight sections deals with pathological conditions, normal obstetrics having been omitted. Each subject is considered in systematic order, beginning with definition, taking up types of the disease or condition, etiology, pathology, symptoms, diagnosis, differential diagnosis, prognosis, prophylaxis and treatment. The different subjects have been handled in a liberal manner, each having been approached from several angles. There is no set idea carried out, as to the manner in which certain conditions must be treated. The reader is presented with practically all of the accepted methods of procedure in a few concise sentences, and from among these he may choose such as are particularly suited to the case in hand.

On first seeing the book, one's feeling is that it is too small to cover the field of its subject, yet one finds practically no important point neglected. It is not a text book, but rather a handy complete notebook. K. L. S.

Diseases of Infancy and Childhood. By Henry Koplik. Fourth edition, revised and enlarged. Illustrated with 239 engravings and 25 plates in color and monochrome. 928 pages. New York: Lea & Febiger. 1918.

This book is valuable to the medical student and the general practitioner treating children, particularly as an aid to diagnosis. Its greatest value lies in the logically arranged and detailed descriptions of common and important conditions. Etiology, pathology, symptomatology and differential diagnosis are dwelt upon; cases are given and statistics quoted which contribute directly to a clear understanding of the subject. The illustrations of actual cases are numerous and helpful; the color plates are excellent. The book includes in, mental and nervous diseases, but the rarer and more specialized aspects of the various disorders are dismissed briefly. The subject matter is arranged by diseases of systems and is made readily available by an excellent index. Particularly valuable are the chapters on acute diseases, specific infections, diseases of the digestive tract, tuberculosis and syphilis. The book brings much

new material, the results of recent work on poliomyelitis, meningitis, acidosis, etc. The section on infant feeding is comprehensive, but presents some difficulties of application to one unfamiliar with the subject of milk modification and specialized foods. The student will appreciate the section on diagnostic methods and therapy. Treatment is discussed briefly with little or no detail as to method and dosage, so that the book is somewhat disappointing as a reference for therapy. Its great value lies in sections bearing on diagnosis and pathology. P. P. P.

Immunity

LOS ANGELES SIGN-POSTS.

To the Editor:

Owing to the peculiarly sensitive condition of mortal mind in Los Angeles County, it occurs to me that all automobile sign-posts reading: Danger, Go Slow, should be changed to: God is Love!

THOUGHTFUL CITIZEN.

April 20, 1919.

AGREES WITH WOMAN PHYSICIAN.

To the Editor:

Hip! Hip! Hoorah! I am glad that one woman had the nerve to say in print what a lot of us think, that women physicians got a raw deal from the war department and also, I am glad that she had a chance to get her letter in print. The facts cannot be concealed. Why should women physicians not receive the same rank, salary, and authority as men physicians, when the work and responsibility are the same?

Again wrathfully yours,

ANOTHER WOMAN PHYSICIAN.

April 11, 1919.

DISAGREES WITH WOMAN PHYSICIAN.

To the Editor:

I wish to protest most emphatically against the tone and spirit of the outrageous letter entitled "A Just Complaint From a Woman Physician" in the Immunity department of the April Journal. Women physicians did receive recognition from the War Department and patriotism alone, let alone decency, would require that they show a spirit of service and loyalty which would make them willing to serve in whatever capacity their labor could be most useful. That most of them did this, is a well known fact. I am, therefore, the more surprised that such a lucubration should be possible from a woman physician, and I am even surprised that it should receive publicity at the hands of the Journal.

Very truly,

K. L. A.

April 18, 1919.

Correspondence

NEVADA INVITATION.

To the Editor:

On behalf of the Nevada State Medical Association I extend a hearty invitation to the California State Medical Association to attend our meeting at Lake Tahoe Tavern on June 20th and 21st.

We are expecting a large attendance and a good time, with plenty of riotous living on the part of the Nevada crowd, who see one last chance to get good and wet before the whole country becomes a desert.

If any of your members will favor us with papers we will be glad to have them do so, and I would like to know about it as soon as possible.

Yours very truly,

HORACE J. BROWN,

Sec'y-Treas.

CONCERNING AN IMMUNITY LETTER.

To the Editor:—In looking over the April number of your Journal I noted under the Immunity section an exceedingly crude letter by a Medical woman signed, "One Who Tried." While I deplore the manner of stating her case, I am forced to admit there is an element of truth in it. That the U. S. Government treated the women physicians shabbily is undoubtedly true, but the women who entered the Army knew exactly what their status would be, therefore it seems to me they have no just cause for criticism.

That the women have done splendid and noble work nobody can deny, and it seems all the more glorious in that their motives were purely patriotic. They have shown their mettle and now is the time for them to claim their reward. During the war it was impossible to interest Congress in any measure not essential to the conduct of the war, but now that that is over let the women physicians of the United States get together and put a bill through Congress entitling them to commissions in the Army in times of war, and in the Public Health, Marine and Sanitary Services at all times.

Yours truly,

MILICENT COSGRAVE, M. D.
April 9, 1919, San Francisco.

PUBLICATION OF PAPERS BY ARMY MEDICAL OFFICERS.

To the Editor:

As stated in the circular memoranda for Editors of Medical Publications issued by the Surgeon General's Office on March 27 and May 22, 1918, it is required by paragraph 423, Manual of the Medical Department, that all medical manuscripts by medical officers, U. S. Army, intended for publication shall be first submitted to the Surgeon General's Office, Washington, D. C., for approval. This regulation, which has been very courteously complied with, to date, is still in force as far as medical officers on active duty are concerned. In the case of medical officers recently retired from active duty, it is requested, as a courtesy to the Surgeon General and in aid of assembling material for the Medical History of the War, that all medical manuscripts based upon military or official records or upon military experience during the War, be submitted as heretofore, to the Secretary, Board of Publications, Surgeon General's Office, Washington, D. C., for record and approval and that such MSS be accompanied by a carbon copy. Upon approval, the original copy will be forwarded to the journal designated, for publication, and the carbon will be filed in the records of the Medical History of the War.

For the Surgeon General:

(Signed) C. R. DARNALL,
Colonel, Medical Corps, U. S. A., Executive Officer.
March 20, 1919.

CRITICISM OF EDITORIAL.

To the Editor:—In the March issue of the State Journal, you take occasion to spank the Journal of the A. M. A. for its excellent editorial of January 4th on the Los Angeles County Hospital.

At the outset of this letter, I wish to state that I did not inspire the editorial of the Journal of the A. M. A. nor did I have any knowledge of its publication or of the situation until I read the editorial. I have never had any communication from the Journal concerning this subject nor have I any correspondence or conversation with anybody connected with the Journal about the Los Angeles County Hospital.

The editorial simply states a fact and deplores that fact. It is a fact that "out of twenty-six internes at present in this hospital, eleven are re-

ported as graduates of an osteopathic college, one is a graduate of dentistry and one holds a diploma from the notorious Oriental University, a 'correspondence' institution at Washington, D. C. It is unbelievable that these internes could have secured their places had they been required to pass a thorough but fair examination, including practical and clinical tests, such as used in testing the qualifications of internes by other high grade hospitals in the United States." * * * * "It is hoped that the conditions at present in Los Angeles County Hospital are only temporary, due perhaps to a war emergency, etc."

Now, what's wrong with that? Absolutely nothing. It is a most deplorable situation brought about not altogether by war conditions but by the methods of conducting examinations and insufficient frequency of examinations as well as several other bad factors in the management of this "excellent" institution.

The manager of the Los Angeles County Hospital is not a Doctor; as quoted in your editorial. He never had one day of hospital or other institutional experience prior to his elevation to the management of the Los Angeles County Hospital two years ago. He was a very good railroad clerk of the S. P. variety and after the Mexicans chased Mr. Epes Randolph's group out of Mexico, Mr. Martin did some very efficient work for the County Charities, I am told. This is the simple story.

Mr. Martin states in his article in the State Journal that the Hospital is "non-political." I am glad to know this. I was laboring under the delusion that politics had something to do with his appointment to the position he now holds.

Mr. Martin wrote an article condemning the Journal of the A. M. A., which was published as an editorial in the Los Angeles County Society Bulletin. The Secretary of the Society admitted to me that Martin wrote this "editorial." Upon what meat doth this our Caesar feed that he hath become so great that he edits our County "Bulletin" and our State Journal?

May I ask the readers of the California State Journal to read the editorial on the Los Angeles County Hospital in the Journal of the A. M. A. for January 4, 1919?

Why not copy it in full in the State Journal and let the profession judge for itself?

"Fuller investigation and better acquaintance with the facts of the case would doubtless have led to a very different judgment"—on your part before attempting to trounce the Journal of the A. M. A.

Respectfully,

WILLIAM DUFFIELD.

Los Angeles, Calif., March 25, 1919.

(Comment.—Dr. Duffield's letter gives the impression of being a personal attack on the superintendent of the Los Angeles County Hospital, and incidentally on that hospital. The incorporation in the Journal editorial of the "Dr." before the name of Mr. Martin was a slip occurring but once and was in no sense intentional or designed to give a wrong impression. Nor was it a very serious matter after all. The Journal editorial was written after due and adequate investigation of the situation induced by the editorial in the A. M. A. Journal of January 4, 1919. When the A. M. A. editorial appeared, the write-up of the Los Angeles County Hospital which subsequently appeared in the March issue of the California State Journal, was ready for publication and its publication was deferred until the editor had communicated by letter and by personal conference with persons whose knowledge was authoritative. Mr. Martin volunteered no statement until directly asked by letter to explain the facts as they appeared to him, which resulted in the A. M. A. editorial. He did not

write, suggest, nor request the editorial in the *California State Journal*.

Dr. Duffield quotes the statements in the A. M. A. editorial and asks, "What is wrong with that?" Our answer is found in the editorial in the March issue of this *Journal* where the limitations imposed on the hospital as regards its examinations, and appointments, which are dependent on a civil service list, are pointed out. If Dr. Duffield has had a "delusion" as to the political nature of the Los Angeles County Hospital, the matter should be settled by the Los Angeles County Medical Society. The editor of this *Journal* has not expressed an opinion on the subject.

Dr. Duffield states that Mr. Martin "edits our County Bulletin and our State Journal." The former statement is a matter for Los Angeles County determination strictly. The latter is not true. It is a fact that the editor of the *California State Journal of Medicine* does not write each and every editorial in it. He assumes full responsibility however, for each one, and edits their tone and argument. A similar situation exists, to the personal knowledge of the writer, in the case of practically all of the larger weekly medical journals of the United States.

Referring to the last paragraph of Dr. Duffield's letter, we are still waiting to hear any additional facts which would lead to reconsideration. Why not present new or fuller facts, rather than merely attack a well-sustained presentation? If there are abuses in the Los Angeles County Hospital, and if it is essentially political in its appointments, and if it does not measure up to acceptable hospital standards, may we invite all concerned or interested to read the editorial in this issue on Hospital Improvement and Standardization, and further, may we invite them to secure the membership of the hospital in the hospital section of the League for the Conservation of Public Health, which affords an excellent medium to study existing situations, and to work out means for improving them.)

State Society

The general meeting of the Medical Society of the State of California, which took place at Santa Barbara April 15th, 16th and 17th, was one of the most successful in the history of the Society. It was the second largest meeting ever attended. The hotel accommodations were ample and the weather was most delightful. Perfect harmony ruled throughout the entire convention, and the spirit of the event was most happy and wholesome. The Scientific Program was replete with valuable and interesting presentations. One of the big features of the meeting was the luncheon given by the League for the Conservation of Public Health. This was a most successful event and the speeches given on this occasion opened the eyes of the profession to the purposes and principles of this laudable organization.

A full report of the meeting will be given in a forthcoming issue of the *Journal*, and it will show that the Society has made very definite progress in the development of the highest ideals of the profession and in the scientific spirit which should rule us.

County Societies

ALAMEDA COUNTY.

At the regular meeting of the Alameda County Medical Association held March 17th, 1919, the following interesting program was presented:

I. Medical Treatment of Visceroptosis.

Dr. H. Gordon MacLean.

The Doctor in his paper brought out the following points:

Uncomplicated visceroptosis is readily amenable to medical treatment.

The underlying causes are chiefly developmental consisting of narrowed, flattened thorax, depressed diaphragm, undeveloped, stretched out abdominal, pelvic and vertebral muscles, with associated spinal defects. The stomach is usually only slightly atonic and the colon spastic and not kinked. The constipation is due to the relaxed abdominal and pelvic muscles and not to any atony of the colon; therefore cathartics are contraindicated.

The patient is put to bed and the foot of the bed gradually raised to 9 inches. The food intake must be 3000 calories or over, and consists of 3 meals daily with 2 quarts of milk and one-half pint of cream worked in between the meals. Hot compresses are applied for 40 minutes after the meals. General massage, except over the abdomen, is given nightly. Exercises designed to develop the abdominal, pelvic and vertebral muscles, and to widen the lower chest are instituted.

After the rest period of 5-8 weeks, the patient is fitted with a proper corset and instructed to keep up the exercises and the high caloric intake.

Under this regime the weight is increased 15-30 lbs and the lower chest circumference increased 3-8 inches.

II. The Roentgen Study of Visceroptosis.

Mr. P. L. Ansell.

Mr. Ansell brought out several interesting and valuable factors:

The grouping and correlation between physical characteristics and visceral form, position and tonus was well covered and excellently illustrated.

Of special interest was that part of the paper devoted to the differential interpretation of organic lesions such as gastric and duodenal ulcers, chronic appendices, pericecal and pelvic adhesions and the frequency of their occurrence in visceroptotic individuals. Several lantern slides were shown demonstrating the great value of Roentgen study as an aid to diagnosis in this type of cases.

III. Cystitis as a Diagnostic Fallacy.

Drs. G. G. Reinle and E. Spence DePuy.

The authors claimed that Cystitis, except in some instances, is not a disease, but an indication of some other condition, and that a Cystitis may be an indication of pathological changes varying in location from the urethra to the kidneys.

Every case of Cystitis should be proven not to be normal before one may satisfy his conscience that the patient is suffering no injury from neglect. Particularly was emphasis laid upon the necessity of excluding Tubercular Kidney in every case of Cystitis in the young.

These papers were ably discussed by Drs. W. H. Strietmann, Albert Rowe, R. T. Stratton and O. D. Hamlin.

The regular monthly meeting of the Samuel Merritt Hospital Staff Council was held at the Hospital, Monday evening, April 7, 1919.

The program included papers on "Autoplastic Surgery in Fractures" by Drs. W. L. Bell and M. L. Emerson, and a paper on "Irritable Heart" by Dr. A. W. Hewlett, Professor of Medicine at Stanford University.

After the scientific program, a light supper was served and an enjoyable hour spent by those present.

The members of the Alameda County Medical Association were indeed shocked and grieved at the sudden and untimely death of Dr. Ellsworth Bailey March 26th, 1919, at his home in Berkeley. The Doctor was cleaning his gun expecting to leave on the following day for a vacation and hunting trip in Shasta County, when, in some way,

the gun was accidentally discharged, inflicting the fatal wound.

The Board of Supervisors appointed Dr. Charles E. Mordoff, formerly a Major in the Army, resident physician at the Alameda County Hospital. Dr. Mordoff succeeds Dr. C. R. Krone.

A resolution inviting the State Board of Health to make a health survey of the city of Oakland was unanimously adopted today by the city council. The work will be begun immediately.

LOS ANGELES COUNTY.

Society Meeting.

The first monthly meeting of the Los Angeles County Medical Association took place in the Arrow Theatre of the Hamburger Bldg., March 6th, at 8 P. M.

The President, Dr. W. T. McArthur, opened the meeting.

Capt. E. G. Stivers, M. D., spoke on the "Treatment of Stammering and Other Speech Defects."

The next paper was by Major Chas. D. Lockwood, M. D., "A Review of Five Hundred Operations for Battle Casualties."

The last number of the program was Major E. C. Moore's talk on "The Battle of the Argonne."

The Second Monthly Meeting.

The second monthly meeting of the Los Angeles County Medical Association took place in the Arrow Theatre of the Hamburger Bldg., March 20th, at 8:30 P. M.

Dr. W. T. McArthur, the president, called the meeting to order, and mentioned that the subject for the evening was one which had been studied by Hypocrates, Aesculapius and Moses, whereupon he introduced the distinguished specialist, Dr. S. Adolphus Knopf, from New York.

Dr. Knopf presented his subject "Prevention of Relapses in Cases of Arrested Tuberculosis Among Soldiers and Sailors," with demonstration of masso-hydro and respiratory therapy on a patient.

He spoke of the rehabilitation of the soldiers, "blesse" as the French say "Par la Tuberculose," told how the draft boards had endeavored to exclude tubercular men from the Army, of the instructions given by the Surgeon General that the American soldier should be taught about tuberculosis and of the many hospitals founded by the Government. In these hospitals the soldiers are retained until the malady is reduced to the minimum.

Soldiers and sailors were chiefly affected between the ages of 18 and 36. More consultants, sanatorium physicians and also those who are to solve the problems of the subject are needed. The vast majority of the patients leave too soon because of the economic necessity. If they could be retained longer, many relapses would be avoided.

He then gave the methods of treatment of arrested cases which he recommends as the most effective in preventing relapse: first, Masso-therapy. Massage was much neglected and was thought too expensive. The war-blinded soldiers could be trained to make good masseurs. Massage removes muscular flabbiness and degeneration. Swedish massage can be used to prevent relapses. It can save thousands in pension money. In massaging, the room should be warm, and the table of medium height. Four movements is all that is necessary and each kind to be repeated four times all from the periphery to the heart. Friction; kneading by which the muscles are lifted from their long attachment. There should be no strong massage over the abdomen; tapping; stroking, by enveloping the whole joint with your hands while stroking. Forty-five minutes of this is all that is necessary for a massage. After doing

the front, turn the patient face downwards and do the back. There are also passive, assisted, and resisted and rotary movements which explain themselves.

Discussion.

R. L. Byrnes, M. D.—Experience in the general hospital No. 16 at the front has taught us that some tubercular soldiers are very ignorant. After a physical examination they are kept in bed for ten days or sent to some vocational school. They want to get home. These men get exercises therefore have no flabby muscles. The conditions for civilian patients are so much better than those for the soldier.

Chas. C. Browning, M. D.—We are remiss in not securing the co-operation of the patient. The patient can be made to understand that the pathology of tuberculosis is scar formation. The history of this scar serves as a working basis, as an understanding of the patient of the necessity for the time for the scar to become firm so as to protect from further advancement of the tuberculous process—it is the limiting agent of extension.

Massage is a means of exercising muscles without effort on the part of the patient. It may be used to advantage to increase metabolism when active exercise is contra-indicated.

Hydrotherapy cannot always be carried out with the use of hot water. If the patient is not accustomed to cold baths, these may be started by exposure of a portion of the body to the air, using a bath towel for rubbing the body; gradually extend this process to the entire body. Begin the gradual extension of use of water with the hand or sponge until the body is finally sponged all over. In this way in a few days most people will be enabled to take cold baths. The measure of the value of the bath is the reaction.

Dr. N. N. Wood—The subject was a timely one and I concur with Dr. Byrnes. The patients go back to their homes and the treatment falls heavily on the physicians of their abode. Some of the hospitals are undermanned.

Dr. George L. Cole moved a vote of appreciation and said that the subject may be applied to the cases of tuberculosis that will follow the influenza epidemic. It is a timely subject of great interest to us all. The motion was carried with great applause.

Dr. W. E. Carter on behalf of the Los Angeles County Hospital Alumni Association, presented a beautiful ring as a token to the oldest living alumnus, Dr. A. Adolphus Knopf, who answered in fitting terms. He referred to the beginning of his medical studies in Los Angeles and the well known medical men, some still living here, who guided him in the beginning, all of whom he remembered gratefully.

PERSONALS.

Physician Returns.

Capt. Matthew Campbell, who has been in service in the Medical Corps, has returned to Los Angeles. Dr. Campbell will go to New York for a two months' post graduate course after which he will resume his practice.

Doctor Resumes Practice.

Dr. Ross Moore has returned from France and is about to resume his practice. He was a Major in the neurological section of the Medical Corps for eighteen months, most of which time was spent in France.

Dr. Egerton Crispin, Lieutenant-Commander, Medical Corps, U. S. N., who was called out with Navy Base Hospital No. Three, organized in Los Angeles in December 1919, recently returned from over-seas to his home in Los Angeles.

Doctor's Wife Dies.

Mrs. Eva M. Kibbe Anderson, 43 years old, wife of Dr. C. Edward Anderson, died March 11, after a three days' illness of meningitis. She leaves a young son and daughter.

Dr. Biggs Returns.

Dr. Elmer I. Biggs, who has been attached to the permanent staff of Camp Lewis with the rank of Captain since July, 1918, has received his discharge from the army and has returned to resume his practice.

Physician Going East.

Dr. Chester H. Bowers, who has been in the ear, nose and throat department of one of the United States Naval Hospitals has been released from service, and is going to Harvard Post-graduate School and the clinics of the East. Dr. Bowers is a member of the faculty of the College of Physicians and Surgeons of this city and on the staff of Los Angeles County Hospital.

Dr. Mackenzie Returns.

Dr. W. W. Mackenzie, who was commissioned as Captain, and served in the Medical Corps at the Letterman General Hospital at the Presidio, has received an honorable discharge and has returned to Los Angeles.

Venice Physician Injured in Collision.

Dr. I. L. Magee was slightly injured when he was driving across the Rose Ave. Railroad crossing. Dr. Chester H. Bowers, who has been in the ear, Hubbard, a fireman, was suffering from a bad cut.

Captain's Wife Dies.

Mrs. C. A. Tillotson, wife of Capt. C. A. Tillotson, died March 20 in the Agnew Sanitarium near San Diego, where she was taken following a stroke of paralysis last Monday. Mrs. Tillotson went to San Diego Saturday to meet Capt. Tillotson when he was discharged in Camp Kearny following the return of his company from France. Capt. Tillotson, formerly a physician near Fresno, went overseas with the Fifty-fifth Ammunition Train from Fort McArthur in August 1918. He received his commission in July, and was ordered to report to Fort McArthur the first part of August. Mrs. Tillotson had one child, John S. Tillotson, 11 years old. The family came to California in 1907 from Fort Benton, Mont.

Noted Surgeon May Live Here.

Dr. John Harrison Quayle is leaving Los Angeles to-day for his home in Cleveland, Ohio, after a visit in what he declares is the finest section of America. He said he looks forward to the time when he is able to make his home in this city.

Dr. Quayle came here after performing one of the hardest tasks carried out by any war-worker—that of reclaiming thousands of soldiers out of men who, under the regulations in force before 1918, would have been rejected as physically unfit. Dr. Quayle is responsible for the entire medical reclamation work of the American Army, having started it in 1917, when 78% of the men examined were being rejected.

Angeleno Is Honored.

Dr. Howard W. Seager, Los Angeles physician and surgeon, who is now on overseas duty, attached to Base Hospital 131, A. E. F., has been cited for a certificate of merit by his commanding general, it became known here yesterday.

The citation is based on Dr. Seager's past and present service record. In recommending the citation Lieut. Col. H. H. Smith made the following notation: Capt. Seager served during the Spanish-American War and Philippine insurrection with the United States Army, in the capacity of a medical officer, with credit to himself, having received a laudatory mention in the Inspector-General's report of 1902. My own reasons for forwarding this request are naturally based upon the character of his work with the organization known as Base Hospital 131.

Dr. Dehelly Arrives.

Dr. George Dehelly, a celebrated French surgeon, and an associate of Dr. Alexis Carrel, has arrived for a three days' stay in Los Angeles.

The Doctor is in this country for a brief stay as

a lecturer for the Rockefeller Foundation. This afternoon he will speak at the Ebell Club; this evening he will address the Alliance Francaise, speaking at the last, in French. Tomorrow evening he will be the guest of honor at a banquet to be given by the Pathological and Clinical Society of Los Angeles. His subject will be "The Modern Treatment for Compound Fractures." Dr. Dehelly spent many months as the head of a Base Hospital in France.

MISCELLANEOUS.**Pasadena Plans Maternity Hospital.**

The city of Pasadena is going to assist the stork by establishing a municipal maternity hospital in the less well-to-do section of the city, it was announced by Dr. J. Severy Hibben, City Health Officer.

For Tuberculous Sufferers.

Kings and Tulare counties will soon dedicate the joint tuberculous sanatorium, recently completed at Springville, a mountain town in Tulare county. The new structure will cost, including the site, about \$50,000. It will be paid for on the basis of 26% for Kings and 74% for Tulare. The main infirmary is 1005 feet long and faces Camp Wishon near by. A fine spring near the hospital will furnish abundant pure water. The hospital was inspired by Mrs. E. L. M. Tate-Thompson of the State Board of Health. The original plan was to have a tricity hospital but Kern County withdrew from the arrangement and built its own hospital. Kings and Tulare went ahead with the joint plan. The hospital will accept pay patients on the basis of their ability to pay. It is planned to dedicate the hospital on April 1.

Surgeons Meet Here.

Better health through better hospitals was the object of a hospital conference of the American College of Surgeons held at Hotel Alexandria, Los Angeles, during the afternoon and evening of April 2.

Afternoon Session.

"The Occasion for the Conference.....
.....Dr. Henry H. Sherker
Chairman State Committee on Standards, Pasadena.
"What is Hospital Standardization?" (Clinical
Laboratories, Case Records, Staff Organization)
.....Dr. John G. Bowman
Director of the College, Chicago.

Discussion:

- (a) "Case Records".....Dr. Granville MacGowan
- (b) "Staff Organization".....Dr. F. C. E. Mattison,
Chief of Staff, Los Angeles County Hospital.

For More Nurses.

At the request of the Health Department, the City Council has instructed the City Attorney to prepare an ordinance providing for five additional nurses in the Health Department. It is proposed to utilize these nurses especially in giving instructions to mothers in the foreign colonies of the city as to proper methods for the care of their babies, as a means toward cutting down infant mortality.

- (c) Laboratories, Their Equipment and
Management.....Dr. Stanley P. Black
"Inescapable Duties".....
.....Charles B. Moulinier, S. J.
President Catholic Hospital Association, Milwaukee.
Evening Session.—8 o'clock.

Hospital Progress:

- (a) "The Hospital's Part".....
.....Rt. Rev. Joseph H. Johnson
- (b) "The Doctor's Part".....
.....Dr. Andrew Stewart Lobingier
- (c) "The Citizen's Part".....
.....Dr. John Willis Baer
"What the Medical Profession Wants in Hospitals".....Dr. John Bowman
"Team Work for Success".....Chas B. Moulinier, S. J.
Dr. Ruth Allen Newland, 90 years old, one of the most remarkable women in the history of Cal-

ifornia, died at the home of her friend, Mrs. N. B. Wright.

"Fit to Win."

The United States Public Health Service presented March 13 at the Majestic Theatre, Los Angeles, a remarkable motion picture drama entitled, "Fit to Win," illustrating in a telling manner, the terrible evils of venereal diseases. Professional men, ministers, and business men were invited. Those who missed seeing it should not fail to go, in case another chance be given to redeem their loss.

ORANGE COUNTY.

The April meeting of the Orange County Medical Society was held in Santa Ana at James' Cafe. There was a large attendance present and the chief business of the evening was the election of officers for the ensuing year.

The following officers were elected:

President, Dr. G. M. Tralle, Santa Ana;
Vice-President, Dr. J. H. Lang, Fullerton;
Secretary, Dr. W. C. DuBois, Santa Ana;
Treasurer, Dr. C. C. Violet, Garden Grove;
Librarian, Dr. C. D. Ball, Santa Ana.
Delegates to the State Society—Dr. H. M. Robertson, Santa Ana, and Dr. H. A. Johnston, Anaheim; Dr. J. L. Dryer, Santa Ana, and Dr. R. A. Cushman, Santa Ana, as alternates.

After the election of officers the members partook of a delicious luncheon with Dr. H. A. Zaiser of Orange as toastmaster. The responses to the toasts consisted of case histories, which were very interesting and beneficial. After spending a pleasant half hour in the relating of amusing incidents and experiences the enjoyable evening came to a close.

SACRAMENTO COUNTY.

March 11, 1919.

A special meeting of the Society was held on the evening of this date at the Hotel Sacramento. Members of the County Hospital staff for the second quarter were elected. Chiefs of the staff for the second quarter are as follows:

Surgery Dr. T. J. Cox
Medicine Dr. G. P. Dillon
Gynecology Dr. Jones
Obstetrics Dr. Pitts
Genitourinary Diseases Dr. Nathan Hale
Pediatrics Dr. S. J. Wells

Lectures for the subjects required in the nurses' curriculum were also appointed for the lectures at the County Hospital for the coming year.

2nd Meeting, March 17th.

On this date, the fifty-first annual banquet of the Society was held at the Hotel Sacramento, at 6:30 p. m.

The toastmaster of the evening was Dr. E. M. Wilder, who called the meeting to order. Dr. Howard Morrow of San Francisco delivered an interesting and instructive paper on the use of radium in the treatment of skin diseases, after which the members and visitors sat down to a sumptuous banquet.

Personals.

Dr. S. E. Simmons, who a few months ago returned from Camp Lewis, is convalescing in a San Francisco hospital, following a cholecystectomy.

Dr. E. S. Loizeaux, recently returned from Army service in France, has been appointed Superintendent of the Sacramento County Hospital.

Dr. James H. Parkinson, the first doctor to enroll in the Army service upon the declaration of war by the United States, has returned to practice, after being stationed first in San Francisco,

and later at Camp Fremont, from where he was sent to Newport News, Va.

Dr. Howard Cameron, who also entered the Service early in 1917, has returned from Vancouver, where he had been doing special work in eye, ear, nose and throat.

Dr. H. J. Davis has recently returned from Ft. Riley, and has resumed his practice.

Dr. Nathan Hale, first stationed at Camp Lewis, then sent to France, where he saw service in the Argonne Forest offensive, has recently returned and resumed practice, specializing in genitourinary diseases.

Bureau of Medicine and Surgery.

At a recent meeting of the Chamber of Commerce of the City of Sacramento, a committee consisting of Dr. Hanna, Dr. James, and Dr. Cox was appointed to establish a Bureau of Medicine and Surgery, this being one of the numerous bureaus of the Chamber of Commerce activities.

By the organization of this bureau, the Chamber of Commerce feels that questions pertaining to public welfare and health can be more intelligently considered.

SAN DIEGO COUNTY.

San Diego County has marshaled a strong delegation to visit the State Meeting at Santa Barbara. Good roads, good weather, good company and good entertainment are assured, as well as an unusually strong scientific program.

The new wing recently added to St. Joseph's Hospital contains operating rooms sufficiently numerous, sufficiently roomy and well lighted to bring joy to the heart of the surgeon. The x-ray equipment is in keeping with the high standard of service demanded of San Diego hospitals.

The Hospital Standardization movement was given a local stimulus at a recent meeting in the Medical Library, addressed by Father Moulinier, president of the Catholic Hospital Association, and Dr. John G. Bowman, director of the American College of Surgeons. It is to be regretted that these gentlemen can make but "one night stands."

During the past month Dr. Boris Sidis of Boston, physician, psychologist and author, who is spending the winter in San Diego, addressed two large and interested audiences, the first under the auspices of the Medical Library, which was made up largely of the educators and advanced thinkers of the community, listened to an advanced plan for the Reconstruction of Education. The second audience consisting largely of the medical profession was treated to an interesting discourse on Psychopathology and Psychotherapy, embodying much of Dr. Sidis' original work.

The Doctor amazes his hearers with the breadth of grasp of his mentality.

On March 11th the County Society was entertained by the staff of the Rockwell Field Post Hospital with demonstrations of the work of their research laboratory in determining the flexibility of the nervous and circulatory systems of those training for sky pilots.

During February the Society enjoyed two excellent programs; one at a dinner meeting in the Maryland Hotel consisting of an address by Col. Frederic A. Besley, consulting surgeon Second Corps A. E. F. The other, held in the auditorium of St. Joseph's Hospital, consisted of a liberal discussion following an excellent paper by Dr. Lyell C. Kinney of the local Society on the use of X-ray and radium in gynecologic practice.

On the evening of Tuesday, April 8th Drs. Little, Churchill and Thompson of the local Society gave a symposium of the symptomatology, pathology and vagaries of the epidemic encephalitis now arousing so much interest in the medical world. This symposium aroused much interest in the liberal attendance present.

Major M. C. Harding, of Base Hospital, Camp Lewis, has been spending a few days on furlough among his old friends in San Diego. The Major certainly looks every inch a soldier.

Lieut. Col. Robert Smart has been detached from his unit and has been appointed instructor in medicine in one of the overseas schools in France.

The many friends of Dr. J. Perry Lewis are rejoiced to see the Doctor actively in practice again after his long illness.

Major A. E. Banks has recently returned to his home in San Diego after splendid service overseas, and is reopening his office in the Timken Building.

SAN FRANCISCO COUNTY.

Society Meetings.

Proceedings of the San Francisco County Medical Society.

During the month of February, 1919, the following meetings were held:

Tuesday, February 4th—Section on Medicine.

1. Hyoseyanus as a diagnostic agent.
R. E. Bering.
2. Post-influenzal lung complications.
C. W. Lippman.

Tuesday, February 11th—General Meeting

University of California Clinical Evening.

1. Report of surgical cases.
E. I. Bartlett
2. Case of tetanus, illustrating modern methods of treatment.
M. S. Woolf.
3. Some cases of influenza with complications.
Hans Lissner.

Tuesday, February 18th—Section on Surgery.

1. Graphic presentation of finger deformities.
A. Gottlieb
2. Post-operative treatment of laparotomies.
J. H. Barbat.
3. Remarks on surgery of the war.
Alanson Weeks.

Tuesday, February 25th—Section on Eye, Ear, Nose and Throat.

1. Orbital abscess from ethmoid sinus.
Kaspar Pischel.
 2. Letter from Capt. N. P. Wood, Base Hospital No. 30 in France, describing eye symptoms from mustard gas poisoning.
 3. Medical care of aviator.
F. R. Lewitt.
 4. Routine lavage of lachrymal sac in chronic conjunctivitis.
W. S. Franklin.
 5. Exhibition of trifocal lenses.
M. W. Fredriek.
- Proceedings of the San Francisco County Medical Society.

During the month of March, 1919, the following meetings were held:

Tuesday, March 4th—Section on Medicine.

Demonstration of medical cases.

1. Familial hemolytic jaundice with splenomegaly.
2. Primary carcinoma of the colon with metastases to the liver.
S. H. Hurwitz.

Tuesday, March 11th—General Meeting.

Irritable heart. A. W. Hewlett.

Tuesday, March 18th—Section on Surgery.

Personal experience at the front. Bruce Ffoulkes.

Tuesday, March 25th—Section on Eye, Ear, Nose and Throat.

1. Atresia ducti lachrymalis congenita.
C. S. G. Nagel.
2. Results in a series of cataract operations.
Roderic O'Connor.
3. Discussion of 2 cases of tubercular meningitis of otitis origin.
H. B. Graham.
4. Abstracts from circular letter from W. H. Kellogg, State Board of Health, concerning lethargic encephalitis.

SAN JOAQUIN COUNTY.

The regular monthly meeting of the San Joaquin County Medical Society was held at the City Clinic Friday evening, March 28th. Those present were: Drs. E. A. Arthur, B. J. Powell, C. R. Harry, Minerva Goodman, J. D. Dameron, C. D. Holliger, W. F. Priestly, Margaret Smyth, Mary Taylor, C. F. English, F. P. Clark, N. E. Williamson, F. J. Conzelman, J. P. Martin, J. M. Carr, F. S. Marnell and R. T. McGurk with Dr. Lewis Michelson of San Francisco as guest.

The admission committee reported favorably upon the applications of Dr. Louis Haight and Dr. H. Q. Willis and they were declared members of the Society. It was moved and seconded that the secretary send a telegram to Assemblyman Miller requesting him to use his influence in defeating Assembly Bill No. 196.

Dr. Michelson addressed the members on health matters in general laying particular stress upon the necessity for restriction of the continued spread of venereal diseases. He stated that it was not particularly from the want of laws that the public was suffering but for the proper enforcement of these laws. The doctor asked the society to co-operate with the State Board of Health in getting physicians generally to report venereal diseases and thereby do their part in assisting the board in handling an admittedly difficult task. The benefits of enlightenment on the subject of venereal diseases were very advantageously shown by Dr. Michelson by means of moving pictures, schematic maps and charts provided by the Board of Health. The basis for Dr. Michelson's statistics was secured from the medical department of the United States Army and municipalities that have undertaken modern methods for handling the vice question. The question was brought up by Dr. Arthur as to just what local organization was best equipped for the purpose of taking up the matter of the suppression of venereal diseases in this community. Dr. Michelson proposed the Rotary Club as an organization which might be interested in handling public questions of this kind, and it was suggested that the president of this society interview the mayor and other persons who would be interested in the matter and make a report at the next meeting of the society.

TULARE COUNTY.

At the regular meeting of the Tulare County Medical Society, held April 2, 1919, the following officers were elected:

- President, Dr. W. W. Tourtillott, Lindsay;
- Vice-President, Dr. J. C. Paine, Exeter;
- Sec.-Treasurer, Dr. A. W. Preston, Visalia;
- Member of Board of Censors, Dr. P. R. Walters, Dinuba.
- Delegate, Dr. J. C. Paine, Exeter;
- Alternate, Dr. C. M. White, Visalia.

Notice

Wanted—By the Journal Office: Six copies of California State Journal of Medicine for June, 1918.

THE WILLOWS SANITARIUM.

The value of a hospital to a community is in direct ratio to the enlightenment of its inhabitants.

Modern ideas of health elicit the absolute desirability of the establishment of hospitals. The subsequent patronage depends largely upon when, and to what extent the public considers specialized care necessary during any infirmity.

As a rule the people in a small community resemble a large family. They are sociologists on a small scale. By the unwritten law of the pioneers, co-operation seems to be the established code amongst the country folk. Their neighbor's affairs become their affairs, especially during illness or trouble.

In every community there are always some who have a particular aptitude in caring for the sick. One of these adepts will perhaps through force of circumstances take a patient into the home and, giving satisfactory care, create a demand for further service entirely out of proportion to accommodations. This situation often germinates the idea of the future hospital.

Those in more fortunate circumstances could go to the large city hospital.

The local doctors, business men and the Glenn County Savings Bank showed their faith in the venture by extending and pledging business and monetary courtesies of a very generous nature. This spirit of co-operation helped to give the instigator of the sanitarium fresh courage and created a new inspiration for genuine success in the art of humanitarian service.

The Willows Sanitarium is a building of one story on the bungalow type. It stands on a lot 100 by 150 feet. The building itself is 110 feet long and 32 feet wide with front and back porch screened in. A corridor five feet wide runs straight through and separates the rooms on either side. An old fashioned garden and a dozen almond trees for shade ornament the south side of the building. Here convalescents may enjoy a comfortable change amid such peaceful surroundings. Just across the way is a well kept tennis court owned by the West Side Canal Company. Acacia trees adorn the front of the sanitarium grounds.



Education of a higher degree among the masses marks the present-day trend of life, and when such knowledge is accentuated, the needs of the individual become more easily recognized.

Every progressive community takes a pride in the establishment of its various institutions.

Willows, the county seat of Glenn county, is no exception to this rule. Situated in an agricultural district, with a population of over 2500, a splendid high school reflects the spirit of progress—likewise the Chamber of Commerce, Monday Afternoon Club (a women's civic club), Glenn County Library, Agricultural Department, University of California (represented by the farm advisor and his staff), branch headquarters of National Forest Reserve, Free Employment Agency, town band, churches representing seven different denominations and their allied societies. All these strike a responsive chord in the interests of the community.

Recently the establishment of a small hospital called the Willows Sanitarium was added to the community. It has apparently filled a long-felt want. When it was proposed several months ago, the doctors, merchants and other business people announced their hearty endorsement of such a venture. They said that they felt it to be a necessity as well as an asset to the community.

Up to the time of the sanitarium's birth, sick folks were of necessity cared for in hotels, lodging houses or wherever it was not convenient

and help to shade the porch whenever the warm noon-day sun casts forth his high lights.

A twelve-bed capacity divided into cheerful, well ventilated private and semi-private rooms marks the accommodation facilities of the sanitarium. The rooms are furnished with Simmons' standard hospital beds. Specially made top mattresses insure the patients' comfort. Maple and white furniture such as dressers, chairs and bedside tables complete the rooms. Electric lighted and heated. Call bell annunciator system connecting all rooms. Local and long distance telephone connections can be furnished in four of the rooms.

A commodious sitting and waiting room adorned with pretty plants makes a pleasing impression upon entering the building. The doctor's office to the left is fitted to receive patients who desire admittance.

Comfortable quarters for the hospital staff are provided in the rear of the building. A commodious back porch forms an outdoor living room for them in the summer time. The hospital staff consists of doctor, head nurse, junior nurse, and housekeeper. Whenever the services of a special nurse are required ample provision is made for her accommodation.

The kitchen and pantry are equipped with large gas range, sink, scouring tray, Hoosier cabinet, refrigerator, tray racks and shelves and ample storage room for food supplies. The instantaneous hot water system is a convenience and facilitates the work in the institution.

The patients have a separate bathroom and lavatory, also a rack room for special utensils, furnished with hopper trays for scouring same. Additional equipment for giving shower brush bath, needle bath and electric blanket bath. Portable X-Ray outfit, blood-pressure apparatus and microscope. Clinical laboratory methods are employed for ordinary examinations of urine, blood or sputum.

Then come the modern surgery and sterilization rooms. The sterilizing room, all white with magnesite flooring, is equipped with a Bramhall Deane sterilizer, separate utensils and instrument sterilizers, two nickel tanks of generous capacity for hot and cold sterile water. Foot pedal tap connected with hot and cold water facilitates the surgeon's scrubbing up. Ample closet room for supplies, clinical charts, instruments and accessories.

The surgery or operating room, all white, magnesite flooring with center drain, has a generous north lighting received from five windows. Also a center electric cluster of 400 candlepower sheds a splendid light for any emergency or night operations. Equipment consists of an adjustable steel operating table, Mayo stand, three-bowl stand and irrigator, one additional instrument and dressings table and the anesthetic cart, thermocantery outfit and extension "field light."

The indoor ambulance of substantial build and the wheel chair are ever ready to assist the patient.

The meetings of the Glenn County Medical Society are held in this hospital.

All the representative physicians and surgeons in the county have welcomed this project and shown their appreciation by bringing their patients to the sanitarium.

Country doctors were formerly thought to be provincial in their line of work. If some of their work could be seen when the proper place and accessories are provided for them, prejudiced minds would be convinced beyond a doubt.

This shows the importance of the hospital in the small community. It benefits the patients at home by furnishing the best facilities for their care, and at the same time stimulates the country doctor to exercise his dexterity to greater advantage. It often proves his latent skill when he knows he can get the proper setting for the furtherance of his work and can subsequently rely upon capable help to insure his success.

Department of Pharmacy and Chemistry

Edited by FELIX LENGFELD, Ph. D.

Help the propaganda for reform by prescribing official preparations. The committees of the U. S. P. and N. F. are chosen from the very best therapeutists, pharmacologists, pharmacognosists and pharmacists. The formulae are carefully worked out and the products tested in scientifically equipped laboratories under the very best conditions. Is it not plausible to assume that these preparations are, at least, as good as those evolved with far inferior facilities by the mercenary nostrum maker who claims all the law will allow?

Malt soups and malt extracts have been recommended to keep up the calcium balance in the body and the beneficial effect attributed to maltose or to the potassium carbonate added, or to both. Recent experiments seem to indicate that the beneficial effects of the malt soups are not due to maltose or alkaline carbonate.

There is a law preventing the use of saccharine in food stuffs under any condition, although it may be used in medicine. This law was originally modeled after the German law which was adopted by the German Government, not because saccharine was found injurious, but because it interfered with the use of sugar and the German Government wanted to protect the sugar manufacturers. Dur-

ing the war saccharine was very largely used in Germany and also in this country, the law not being very rigidly enforced. However, now that sugar is again available, the law is again to be enforced. Of course saccharine is not a substitute for sugar as a food and it is a fraud to sell it for this purpose, but it seems this law should be changed to some extent.

Biological reactive proteins for the detection of food idiosyncracies are now on the market and can be readily obtained.

Among the preparations submitted to the Council of Pharmacy & Chemistry of the A. M. A. for inclusion in the N. N. F. was "Haven's Wonderful Discovery" for the cure of Influenza, etc. The directions on this were to take a hot foot bath three succeeding nights, adding three tablespoonfuls of baking soda and applying remedy to the affected parts. The discovery was found to consist of oil of wintergreen, oil of sassafras, oil of black pepper, spirits of camphor, spirits of turpentine, spirits of chloroform and alcohol. It seems unbelievable that anyone should submit such a mixture to the Council and expect their endorsement so as to present this preparation to physicians as ethical. It looks like a joke but it is not improbable that the manufacturer really thinks he has something wonderful and will complain that he is the object of official persecution. It is possible, too, that he thinks his preparation quite as wonderful as some of the mixtures of animal extracts and digestive ferments presented to the medical profession for its approval.

The amended law has made one step in the right direction. The Harrison Act seemed to consider remedies containing less than 2 grains opium to the ounce as harmless and they could be sold without any regulation whatsoever. This has now been changed, and a record must be kept of their sale. It is doubtful if anyone acquired the narcotic habit from the use of cough mixtures containing small quantities of heroin or codeine as the other ingredients were of such a nature as to make their indiscriminate use rather discouraging. However, there can be no doubt that at least one popular colic remedy is used very largely on account of the opium and alcohol it contains. A limit of 2 grains to the ounce was originally fixed so that paregoric could be freely sold and extensively used as a household remedy. It was difficult to get opium and the sale of alcohol was being made more and more difficult and yet it was very easy to get a mixture of these which is probably more dangerous than either one by itself. The paregoric habit has been growing materially in the last few years. There has been some attempt at legislation, as for instance a municipal ordinance prohibiting the sale of more than one ounce of paregoric at a time, but this simply meant that the fiend must go to a number of stores in order to get a sufficient quantity to satisfy his appetite.

Many people have not known that paregoric was dangerous or habit forming. This is shown by the fact that the sale of paregoric has been cut down to 50 per cent. in one drug store that has discarded the old label and adopted a new label indicating the danger of its use. It is to be hoped that a bill now before the State Legislature prohibiting the sale of paregoric excepting on a physician's prescription, will pass and be rigidly enforced.

The Federal Anti-Narcotic Act has been extensively amended in connection with the new War Revenue Act. The physician is now required to pay a license fee of \$3 a year instead of \$1 as heretofore. This increase went into effect January 1st, 1919, so that every physician is required to register and to pay \$1 for the term from January 1st to June 30th, 1919. At the time of writing this, the forms for this tax have not been issued. It is understood that a form will be sent to each physician and that he can fill out this

form and then send a \$1 money order without the necessity of appearing in person before a notary or deputy collector. In addition to this there is a stamp of 1 cent required on each ounce or fraction thereof in original package. Any package which does not contain this stamp may be confiscated. It is probable that a tube of hypodermic tablets will be considered an original package and that a stamp will be put over the cork in a rather unsanitary manner. In the meanwhile, every physician is expected to label all packages narcotics which he may have on hand as follows:

On hand Inventory February 25th, 1919—with the physician's initials. Failure to do this subjects the package to confiscation. A physician is also required to keep a record, for at least two years, of any narcotics which he may give to his patients except such as he may use on the patient himself. It is not specifically stated that the physician must label any narcotic he gives a patient with the patient's name, address, as well as the physician's name, address and registry number, but any narcotic found in the possession of an unlicensed person without this information may be confiscated.

State Board of Medical Examiners

REGULAR MEETING.

A regular meeting of the Board of Medical Examiners of the State of California was held at 1500 South Figueroa Street, Los Angeles, March 17-20th, inclusive, for the purpose of conducting the routine business, examinations, and other matters that properly might come before the Board.

Written examinations were conducted in the subjects prescribed by law for physicians and surgeons, drugless practitioners, chiroprodists and midwives, and forty-eight applicants presented themselves for such examinations.

Reciprocity applications were considered by the Board as follows:

Physician's and Surgeon's certificate.....	117
"To practice Osteopathy".....	4
Drugless Practitioner certificate	1
Total	122

Of the 117 reciprocity applicants for a physician's and surgeon's certificate, a considerable number were orally examined by the Board, as provided in Section 13.

The following citations were issued and hearings held under the provisions of Section 14:

Austin, Silas A.—Case dismissed.
Burnet, Jay Otis—Certificate revoked.
Calhoun, James V.—Continued to June meeting.
Davis, Magnet J., Case dismissed.
Haight, Frederick—Case dismissed.
Hickok, Galen—Continued to June meeting; new citation to be issued.
Holsman, Charles K.—Out of jurisdiction; new citation to be issued.
Jacobsen, Moses—Request for restoration of certificate revoked Feb., 1918, continued until June meeting.
Kleeman, Geo. E.—Probation terminated; case dismissed.
Kroetz, Mary—Former order of revocation rescinded, based on action of Superior Court, City and County of San Francisco, on a writ of review.
Richardson, Geo. Henry—Certificate revoked.
Sander, Alfred T. A.—Certificate revoked.
Sieffert, John H.—Continued until June meeting; new citation to be issued.

The Board also held a hearing in the matter of the College of Osteopathic Physicians and Surgeons, of Los Angeles, following the court decision in Los Angeles as a result of the writ of

review filed with the Board subsequent to the action of the February, 1918, meeting, striking the College of Osteopathic Physicians and Surgeons from the list of approved colleges of the State of California, effective June, 1918.

After presentation of the facts by Attorney Ward, representing the Board, and Attorney Robert B. Jennings and President Harry W. Forbes, both representing the College of Osteopathic Physicians and Surgeons, during which presentation the College filed with the Board a communication setting forth their points, it was determined that in conformance with the request of Attorney Jennings and President Forbes, acting for the College of Osteopathic Physicians and Surgeons, a continuance be granted until the June, 1919, meeting for final disposition.

The application of Dr. Calvin Case for restoration of his certificate, revoked at the January, 1917, meeting of the Board, was deferred for final action until the June, 1919, meeting.

The Board refused to re-consider its former action in denying the reciprocity application of George Michael Dunne, after calling Dr. Dunne before the Board for interrogation as to certain information now on file regarding his prior affiliations.

The various committees, Legal and Investigation Departments of the Board, filed reports as noted in the minutes of the Board.

The Secretary reported the following applications as filed since January 1, 1919:

Class A, 21; Class AB, 2; Class BB, 2; Class C, 117; Class CB, 4; Class CBB, 1; Class D, 5; Class F, 6.

The Secretary also reported the issuance of one physician's and surgeon's written, and seven physician's and surgeon's reciprocity certificates since the filing of the annual report—proper issuance having been withheld pending the filing of further data.

Duplicate certificates have been issued to Frederick K. Lord and Peter B. Wood.

The following changes of name, substantiated by proper affidavit, have been filed since January 1st:

New	Old
DeBlois, Mvrtle	(Welcome)
Frei, Letha R.	(Tyler)
Kimball, Edna	(Field)
Ruth, Zoe M.	(Kindig)
Strickler, Florence E.	(Dunlop)
Van Soest, Ella	(Horstman)

Seven licentiates from California have received reciprocity endorsement to other States.

LICENSING EXAMINATION.

Los Angeles, California, March 18, 1919.

ANATOMY AND HISTOLOGY.

P. & S. Drugless.

ERNEST SISSON, D. O.

(Answer ten questions only.)

1. Give the histology of the blood.
2. Give the histology of the retina.
3. (a) Name the ligaments of the knee joint.
(b) What tendons pass behind the internal malleolus?
4. What structures contact with the diaphragm's upper side? Lower side?
5. Name the muscles attached to the lines aspera.
6. Outline the boundaries of lungs in front and back.
7. Name the structures passing under the zygoma.
8. (a) Give the floor of Scarpas triangle from without inward.
(b) Show how the external popliteal nerve gets to the front of the leg.
9. Give the nerve supply of the integument of the hand.

10. (a) Capillaries are not found in what structures?
(b) Name some of the veins that do not have valves.
11. The radial pulse is felt between which two tendons,
12. What nerve supplies the anterior femoral region? Internal femoral region? Posterior femoral region?

Los Angeles, California, March 18, 1919.

ANATOMY AND HISTOLOGY.

Chiropodists.

ERNEST SISSON, D. O.

1. Describe the plantar fascia.
2. What nerve supplies the skin on the external border of the foot?
3. How many muscles does the internal plantar nerve supply?
4. Name the ligaments of the ankle.
5. What muscles form the tendo Achillis?
6. Name the bones on the foot.
7. The tendon of what long muscle passes directly across the sole of the foot?
8. The great sciatic divides into what nerves?
9. Give the branches of the posterior tibial artery.
10. Give the articulations of the os calcis.
11. Give the histology of the blood.
12. Define anastomosis.
13. Give functions of periosteum.

Los Angeles, California, March 18, 1919.

ANATOMY AND PHYSIOLOGY.

Midwives.

ERNEST SISSON, D. O.

(Answer ten questions only.)

1. Describe the chambers of the heart.
2. Describe the lumbar nerve plexus.
3. Define anastomosis.
4. Trace the fetal circulation.
5. Describe the uterus anatomically.
6. How is the innominate bone formed? Give articulations.
7. What is the function of the ovaries.
8. Describe Cheyne-Stokes breathing.
9. Give the physiology of the uterus.
10. Describe the process of secretion of urine.
11. What is normal pulse rate in child one week old?
12. Describe respiration.

Los Angeles, California, March 18, 1919.

PHYSIOLOGY.

P. & S. Drugless.

ERNEST SISSON, D. O.

(Answer ten questions only.)

1. Describe the mechanism involved in regulating the body to heat and cold.
2. Describe the circulatory and nerve mechanisms involved in ordinary effects of embarrassment and fear.
3. Describe the path of conduction of vision from the retina to seat of recognition.
4. Outline the physiological factors concerned in regulating the heart.
5. Enumerate the functions of the cranial nerves.
6. Discuss the functions of the papillae of the tongue.
7. Describe the course and function of the chordi tympani nerve.
8. What factors govern blood pressure in pulmonary circulation?
9. What is the physiological process of recovery from pneumo thorax?
10. Compare secretion with excretion of digestive enzymes.
11. Discuss the most important factors regulating defecation.
12. Discuss the function of the spleen.

Los Angeles, California, March 18, 1919.

PHYSIOLOGY, CHEMISTRY AND HYGIENE.

Chiropodists.

ERNEST SISSON, D. O.

(Answer ten questions only.)

1. Describe the role of insects in the propagation of disease.
2. What method of disposal of sewage would you choose for an inland town of ten thousand?
3. How may typhoid fever be transmitted? How may transmission be prevented?
4. What are the greatest waste products secreted by the urine?
5. Of what importance is specific gravity changes in urine?
6. Of what importance are the sediments found in urine?
7. Give test for bile pigment in urine.
8. Name in order the digestive juices that act upon food.
9. Describe Cheyne-Stokes breathing.
10. Describe the heart cycle.
11. Discuss the function of the skin.
12. Discuss the function of the liver.

Los Angeles, California, March 18, 1919.

BACTERIOLOGY AND PATHOLOGY.

P. & S.

WM. R. MOLONY, M. D.

(Answer ten questions only.)

1. Differentiate Aplastic and Destructive types of anaemia.
2. Discuss gross and microscopic findings in influenza pneumonia.
3. How would you proceed to identify the meningococcus carriers, if any, in a group of one hundred men?
4. Discuss the spinal fluid in meningitis.
5. What types of pneumococcus are there and in a general way what is the importance of each pathologically and epidemiologically?
6. What do you understand by blood types, how many are there and what is their importance in transfusion?
7. Give sites of greatest predilection for carcinoma in the female and in the male.
8. Give at least two conditions where you expect eosinophilin.
9. Give at least two conditions where you expect lymphocytosis.
10. What feature in a urinalysis would make you suspect acidosis?
11. How is Gram's stain performed? Name two Gram positive and two Gram negative organisms.
12. Name five pyogenic organisms.

Los Angeles, California, March 18, 1919.

PATHOLOGY AND BACTERIOLOGY.

Chiropodists.

WM. R. MOLONY, M. D.

(Answer ten questions only.)

1. What pyogenic organism is almost universally found as an inhabitant of the skin?
2. What intestinal organism is often found on the skin?
3. What is the pathology of lymphangitis?
4. Give four methods of sterilization.
5. Give appearances of any primary venereal infections you may find on hand or foot.
6. What is the organism of infectious blood poisoning?
7. What is the organism of each of the three venereal infections?
8. Name four commonly used culture media.
9. Discuss inflammation.
10. Name three malignant and two non-malignant tumors of feet.
11. What may cause gangrene of a toe?
12. Give pathology of tubercular ulcer of skin of foot.

Los Angeles, California, March 18, 1919.
PATHOLOGY AND EL. BACTERIOLOGY.

Drugless.

WM. R. MOLONY, M. D.

(Answer ten questions only.)

1. Define general pathology.
2. Give common names of the following:
 schizomycetes,
 blastomycetes,
 hyphomycetes.
3. Define anemia, hyperaemia, ischemia, hemorrhage, diapedesis.
4. Name four motile bacteria.
5. Name five pathogenic bacteria.
6. Define flagella, spores, toxins, enzymes.
7. Give steps in identifying an organism as the specific cause of a disease.
8. Give one method for staining the tubercle bacillus.
9. Give one method for staining the gonococcus.
10. What is the organism of green pus; of golden pus?
11. Name four diseases manifestly microbic diseases, the specific organisms of which have not yet been discovered.
12. What is supplied in the health office diphtheria package? Be specific regarding the media.

Los Angeles, California, March 19, 1919.

GENERAL MEDICINE.

P. & S.

HARRY V. BROWN, M. D.

(Answer ten questions only.)

1. How would you proceed in making a diagnosis in a case of suspected unilateral tuberculosis of the kidney? Give the treatment.
2. Describe and treat a typical attack of croupous pneumonia following influenza.
3. Give etiology, symptomatology and treatment of angina pectoris.
4. What are the complications to be feared in the third week of typhoid fever, and how would you guard against them?
5. Describe and treat an attack of psoriasis.
6. Give the causes with treatment of jaundice in the adult.
7. Differentiate tetanus from hydrophobia.
8. Give the physical signs of pleurisy with effusions.
9. Give the points upon which you would make a diagnosis of cancer of the stomach.
10. Describe anaemias.
11. Name five conditions in which there will be hemorrhage from the bowel and describe the character of hemorrhage in each.
12. Differentiate epileptic from uremic convulsions.

Los Angeles, California, March 19, 1919.

GENERAL DIAGNOSIS.

Drugless. 2,000 hours.

HARRY V. BROWN, M. D.

(Answer ten questions only.)

1. Differentiate tetanus from hydrophobia.
2. Describe an attack of acute pericarditis.
3. Describe an attack of acute appendicitis.
4. Describe a Colles fracture.
5. Differentiate rubeola from scarlet fever.
6. Give the physical signs of pleurisy with effusion.
7. Give the points upon which you would make a diagnosis of cancer of the stomach.
8. Describe the anaemias.
9. Describe acute poliomyelitis anterior.
10. Differentiate embolism and thrombosis.
11. Name five conditions in which there will be hemorrhage from the bowel and describe the character of hemorrhage in each.
12. Differentiate epileptic from uremic convulsions.

Los Angeles, California, March 19, 1919.

DERMATOLOGY AND SYPHILIS.

Chiropradists.

HARRY V. BROWN, M. D.

(Answer ten questions only.)

1. Give treatment of onychia.

2. What is a feruncle and how treated?
3. What is a carbuncle and how treated?
4. Describe the manifestations of hereditary syphilis as seen on the foot.
5. Describe the initial lesion of syphilis.
6. Describe the secondary lesions of syphilis.
7. Describe ring worm.
8. Give causes and treatment of urticaria.
9. Give treatment of Herpes Zoster.
10. Give treatment of Dermatitis Venenati.
11. What are chilblains?
12. Describe and treat an ulcer of the foot.

Los Angeles, California, March 19, 1919.

CHEMISTRY AND TOXICOLOGY.

Physicians and Surgeons.

HARRY V. BROWN, M. D.

(Answer ten questions only.)

1. (a) Enumerate four chemical reagents essential to a complete urinalysis.
 (b) Give properties of each.
2. Discuss sugars from chemical standpoint.
3. Discuss chemistry of: Butter; Milk; Oleomargarine.
4. What is cream of tartar; Blue vitrol; copperas; nitre?
5. From what is citric acid derived? From what is oxalic acid derived?
6. Give formula and common name of substance from which the Paraffin series is derived.
7. Give formula for ethyl hydroxide, fully describe, and give common name.
8. Name seven important salts derived from alkaloids and give source of alkaloid.
9. Give chemical antidote for poisoning by phenol, sulphuric acid, morphine, cocaine, gelsemium, hydrocyanic acid.
10. Give treatment for poisoning by three chemicals frequently taken with suicidal intent.
11. A urine contains pus and gives an albuminous reaction. How can you determine whether the albumin is due to pus alone or to nephritis as well?
12. What is the chemical treatment of alimentary corrosion caused by mineral acids?

Los Angeles, California, March 19, 1919.

TOXICOLOGY AND EL. CHEMISTRY.

2,000 hour Drugless.

HARRY V. BROWN, M. D.

(Answer ten questions only.)

1. Define inorganic chemistry.
2. Define organic chemistry.
3. Discuss acids, bases and salts.
4. Name four chemical reagents essential to a complete urinalysis. Give properties of each.
5. What does illuminating gas contain generally, and why is it toxic?
6. Name the compounds of silver which are insoluble in water.
7. Name some of the uses and give three combinations of H_2SO_4 .
8. To what chemical group does iodine belong? Give properties.
9. What is the chemical treatment of alimentary corrosion caused by mineral acids?
10. Why should the stomach pump be used carefully, if at all, in such cases?
11. Mention one chemical antidote for each of the following:
 (a) Arsenious oxide,
 (b) Mercuric Chloride,
 (c) Oxalic acid.
12. How would you treat iodine poisoning?

Los Angeles, California, March 19, 1919.

OBSTETRICS AND GYNECOLOGY.

Physicians and Surgeons. Drugless.

R. A. CAMPBELL, M. D.

(Answer ten questions only.)

1. Discuss glycosuria in pregnancy.
2. Discuss phlegmasia alba dolens
 (a) During gestation;
 (b) Following delivery.
3. Give treatment of threatened eclampsia. Give

treatment after onset of eclampsia.

4. In breech presentation give methods of delivering the aftercoming head.
5. Define coccydynia. Give etiology and treatment.
6. Give etiology and treatment of inversion of the uterus.
7. Differentiate vaginitis and vaginismus, and give treatment of each.
8. Outline general scheme of treatment of persistent and pernicious vomiting of pregnancy.
9. Describe operation for complete laceration of the perineum of one year or more duration.
10. Define—1. Hyperglycemia; 2. Agalactia; 3. Gingivitis; 4. Teratoma; 5. Symphysiotomy.
11. Discuss placenta previa.
12. Discuss and give mechanism of labor in R. O. position.

Los Angeles, California, March 19, 1919.

OBSTETRICS.

Midwives.

R. A. CAMPBELL, M. D.

(Answer ten questions only.)

1. Name the presentations in which you would consider that the woman could not deliver herself, and in which a physician should be called.
2. Discuss albuminuria of pregnancy.
3. In breech presentation, describe delivery of after-coming head.
4. Name three antiseptics useful in obstetric practice, and tell how and when you would use them.
5. Diagnose placenta previa.
6. Give causes and symptoms of milk leg.
7. When called to an obstetrical case, tell how you would prepare the patient and the bed for delivery.
8. Outline the care of the woman during the first week following delivery.
9. Discuss the artificial feeding of the baby during the first month.
10. Upon what would you base a diagnosis of dead foetus?
11. What symptoms and conditions may be caused by subinvolution of the uterus?
12. Name five conditions in which you would call a physician.

Los Angeles, California, March 20, 1919.

SURGERY.

Physicians and Surgeons.

P. T. PHILLIPS, M. D.

(Answer ten questions only.)

1. Discuss briefly traumatic fever.
2. Give etiology, symptomatology, and diagnosis, of lateral sinus thrombosis.
3. Give the clinical signs and symptoms, with treatment, of acute synovitis of the knee.
4. Discuss briefly, dislocations of the proximal end of the radius along. Give methods of reduction.
5. Describe the symptoms and signs of paralysis of the musculospiral (radialis) nerve. Of what surgical conditions may it be a complication?
6. Give diagnosis, and surgical treatment in detail, of acute empyema following influenza.
7. Name the types of goitre in which surgical treatment is indicated, and when.
8. Discuss briefly the surgical treatment of hepatic abscess.
9. Describe Ludwig's Angina, causes and treatment, possible complications and their treatment.
10. Describe and give the treatment of a supra-condyloid fracture of the femur.
11. Name the clinical varieties of iritis.
12. Outline treatment of chronic gonorrheal posterior urethritis.

Los Angeles, California, March 20, 1919.

ORTHOPEDICS AND SURGERY.

Chiropodists.

P. T. PHILLIPS, M. D.

(Answer ten questions only.)

1. How would you cleanse a wound of the foot from accident, before dressing it? Describe the dressing.
2. What is the etiology and pathology of club nails?
3. Give the causes and treatment of exuberant granulations.
4. In what condition of the feet would you have the urine examined?
5. Describe nerve-vascular growths, their causes and treatment.
6. Discuss briefly, the treatment of senile gangrene of the feet.
7. Describe congenital talipes equinovarus. When should treatment be begun?
8. Describe rupture of the plantaris muscle, give causes and treatment.
9. What are the special objects in the treatment of sprains, and how are they best effected?
10. Describe chronic bursitis, and its treatment.
11. Describe briefly the bandage of the foot covering the heel.
12. Discuss briefly the care of your instruments.

Los Angeles, Calif., March 20, 1919.

MATERIA MEDICA.

Physicians and Surgeons.

DAIN L. TASKER, D. O.

(Answer ten questions only.)

1. What is the foundation for the rational use of drugs in the treatment of disease?
2. Discuss physiological rest as a therapeutic procedure. Give two examples.
3. Describe four different modes of administering drugs for therapeutic purposes.
4. Discuss oleum ricini, giving its therapeutic action and indications.
5. What is adrenalin? Give its uses and indicate how it should be used.
6. Discuss the indications and contra-indications for the uses of glandulae thyroideae siccæ.
7. Discuss the administration of digestants, hydrochloric acid, pepsin and pancreatin with respect to securing their efficient co-operation with the normal physiological action of the digestive system.
8. Discuss the value of digitalis preparations in the treatment of cardiac decompensation.
9. Discuss the use of opium and its derivatives as analgesics.
10. Discuss the use of normal salt solution intravenously as a diuretic.
11. Discuss the conditions modifying the effects of drugs on the human system.
12. Write a prescription, without abbreviations, for the non-productive cough in the early stage of acute bronchitis.

Los Angeles, Calif., March 20, 1919.

CHIROPODY AND THERAPEUTICS.

Chiropodists.

DAIN L. TASKER, D. O.

(Answer ten questions only.)

1. What is the action of salicylic acid locally applied to callosities?
2. What is onychia? How should it be treated?
3. What antiseptics are used in skin infections on the feet?
4. Discuss the treatment of weakened transverse arch of the foot.
5. What causes infections around the nails?
6. Discuss the treatment of soft corns.
7. What measures are useful in the treatment of excessive sweating of the feet?
8. What is the significance of edema of the feet?
9. Outline the treatment of ingrowing toe-nails?
10. What causes metatarsalgia? How may it be relieved?

11. Describe how the pressure on a bunion may be relieved.
12. What drugs do you consider essential in the practice of chiropody? Give your reasons.

HYGIENE AND SANITATION.

Physicians and Surgeons

Drugless.

H. E. ALDERSON, M. D.

Answer ten questions only.

1. Discuss the prophylaxis of lues.
2. Discuss the prevention of uncinariasis infection.
3. Discuss fully the contagiousness of leprosy.
4. Discuss the effects on the milk and on the consumer of Pasteurizing milk.
5. Discuss the preparation and examination of stools for the amoeba dysenterica.
6. Is ice an infection carrier? Discuss fully.
7. Discuss the quarantine of influenza, scarlet fever and of typhoid.
8. Discuss six factors tending to cause occupational diseases.
9. What is "sewer gas"? Is it a menace to public health? Discuss fully.
10. Discuss the effects of living in higher altitudes.
11. Discuss the effects of cold dry weather on the individual.
12. Discuss the main factors influencing the number of bacteria in the air.

Los Angeles, Calif., March 20, 1919.

HYGIENE AND SANITATION

Midwives.

H. E. ALLISON, M. D.

(Answer ten questions only.)

1. Give a simple method of ventilating sick room without exposing patient to draughts.
2. What diseases may be spread by the house fly?
3. Discuss the most effective means of preventing the increase of flies.
4. What is certified milk?
5. Is ice an infection carrier? Discuss fully.
6. How may bed clothing be disinfected?
7. Name and describe three diseases characterized by a rash.
8. Discuss the prevention of the transmission of syphilis.
9. Discuss the artificial feeding of an infant two weeks old.
10. Discuss the prevention of eye infections in new-born infants.
11. What does the Health Department require in the case of suspected Diphtheria?
12. What hygienic measures should be used in a case of "itch."

New Members

Hollis, John C., Pleasanton.
 Folsom, John E., Oakland.
 Auslan, Harry, Antioch.
 Drake, J. C., Kerman.
 Hollingsworth, M. W., Westwood.
 Boller, Stanley, Los Angeles.
 Rinehart, Henry D., Pasadena.
 Johnson, P. V. K., Los Angeles.
 MacBean Anna, Los Angeles.
 Bassett, F. W., Los Angeles.
 Magan, Lillian E., Los Angeles.
 Hubbard, Clinton, Huntington Park.
 Barnes, Samuel D., Los Angeles.
 Haskell, P. F., Long Beach.
 Judge, W. D., Los Angeles.
 Murray, U. B., Los Angeles.
 Guidinger, W. E., San Pedro.
 O'Brien, H. Jefferson, Los Angeles.
 Riggs, L. D., Los Angeles.
 Daughters, Heaton G., Los Angeles.
 Murphy, Frank W., Los Angeles.
 Murphy, Wm. R., Los Angeles.
 Purcell, Francis J., Los Angeles.

Hamilton, J. R., Los Angeles.
 Mattison, C. W., Los Angeles.
 Barbanell, R. R., Los Angeles.
 Ryan, Clark D., Los Angeles.
 Stewart, Charles W., Los Angeles.
 Wall, A. S., Los Angeles.
 Russell, R. G., Los Angeles.
 Ferguson, C. J., Los Angeles.
 Anderson, C. Edward, Los Angeles.
 Taylor, F. Howard, Los Angeles.
 Mosher, Frank O., Los Angeles.
 Schwartz, Joseph L., Los Angeles.
 Smith, Robert L. I., Pasadena.
 Andrews, Nina W., Los Angeles.
 Tillman, F. J., Fresno.
 Cavanagh, S. P., Point Reyes.
 Cowles, D. C., Fullerton.
 Brasted, J. P., Anaheim.
 Coleman, Earl H., Hobert Mills.
 Crandall, Alice H., San Diego.
 Berges, E. R., San Francisco.
 Glaeser, W. E., San Francisco.
 Woolf, M. S., San Francisco.
 Barry, Ernest, San Francisco.
 Emge, L. A., San Francisco.
 Shea, T. T., San Francisco.
 Fisher, J. M., Gilroy.
 Gattuccio, Batholomew, San Jose.
 Holbrook, E. F., San Jose.
 MacFarlane, A. H., Mountain View.
 Moore, Leroy S., San Jose.
 Shattinger, Charles, Los Altos.
 Tyler, W. R., Exeter.
 Smither, John A., Jamestown.
 Clark, B. F., Woodland.
 Christal, C. H., Woodland.
 Channell, W. L., Oakland.
 McCullough, J., San Leandro.
 Hibbs, David, Oakland.
 Bulfitt, Frederick, Loma Linda.
 Green, J. S., Oakland.
 Prather, D. J., Fresno.
 Thoren, Mildred E., Eldridge.
 Ehrenclou, A. H., Mare Island.
 Callison, F. W., San Francisco.
 Rethwilm, L. A., San Francisco.
 Waste, John M., San Francisco.

Transferred

Rothganger, Geo., San Francisco County to Alameda County.
 Bush, H. Chesley, Placer County to Alameda County.
 Legge, Robert T., Shasta County to Alameda County.
 Mugler, F. R., Alameda County to San Francisco County.
 Greenwood, Edna, Santa Clara County to San Francisco County.
 Piper, H. E., Santa Cruz County to San Francisco County.
 Schaupp, Karl, Santa Clara County to San Francisco County.
 Edwards, S. R., San Joaquin County to San Francisco County.

Resigned

Dr. J. H. Pond, Alameda County.

Deaths

Cole, J. A. A graduate of the Medical College of the Pacific, 1878. Licensed in California, 1893. Died in Oakland, Cal., April 22, 1919.
 Dowdle, Edw. E. A graduate of the Hahnemann Medical College, Philadelphia, 1912. Licensed in California, 1914. Died in New Mexico, April 11, 1919.
 Nelson, T. J. A graduate of Cooper Medical College, California, 1902. Licensed here 1903. Died in Los Angeles, April 18, 1919.

California State Journal of Medicine

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Contributors, subscribers and readers will find important information on the sixteenth advertising page following the reading matter.

VOL. XVII

JUNE, 1919

No. 6

The California Delegates to the American Medical Association Meeting at Atlantic City, N. J., June 9-13, 1919, are as follows:—

C. Van Zwalenburg, Riverside, (2) 1920

Victor G. Vecki, San Francisco, (2) 1920

A. B. Spalding, San Francisco, (2) 1921

The alternates are as follows:—

Wm. P. Lucas, San Francisco, (2) 1920

Jerome B. Thomas, Palo Alto, (2) 1920

T. C. Little, San Diego, (2) 1921

CORRECTION OF ABUSES UNDER THE WORKMEN'S COMPENSATION ACT.

That the physicians of the State have been exploited by many of the companies operating under the Workmen's Compensation Act there can be no doubt. We have plenty of evidence on file in our office. The demanding of rebates upon what is known as the Fee-Schedule is the commonest method employed. This schedule has never been adopted by the Society. Therefore there is no machinery for keeping the carriers and the physicians to their contracts—because there is no contract.

With the increase in price of all commodities there has been, of course, a corresponding increase in the cost of doing compensation insurance business; an increase in all the items save one—medical fees. The carrier has now to pay more for his stenographers, his stationery, his clerks, his hospital care. The physician alone is not paid to meet his increased expenditures. The Fee Schedule was supposedly based (at the time it was devised) upon the average earnings of labor. These earnings have increased enormously in the past few years, and as insurance premiums are based upon pay-roll figures, the income of the carrier has advanced to meet the increase in charges incident to doing business. Assuming that a fixed proportion of all premiums collected is

allotted to medical service, it is easy to see that more money—more dollars—is in that allotment when premiums are higher—and they are now much higher than when the Fee-Schedule was devised. In short the Fee-Schedule should be raised. The profession should now receive more money for the same service rendered to a man in a given employment than he did three years ago. There is no reason on earth why the carriers should be allowed to charge the increase in the ability of labor to pay to profit.

The Committee on Industrial Accident Insurance rendered a report at the Santa Barbara meeting (see page 191), in which it has carefully considered this and several other matters of interest to every physician practising in California. The report is now in the hands of a Committee of the Council, who will confer with the Committee on Industrial Accident Insurance and attempt to take steps to meet the exigencies of the occasion.

Read the report, think it over and send any constructive ideas you may have to the Committee or to the JOURNAL office.

FOR DOCTORS IN SMALLER TOWNS.

FOR DOCTORS IN SMALLER TOWNS.

At the Santa Barbara meeting, a live topic of conversation grew out of the editorials of the last few months advocating the development of the rural and small town hospital. The opinion was freely expressed that in these lay the future hold of the doctor on his own advancement and on fulfillment of his public obligations to society. We must face the fact, whether we recognize it or not, that the doctor *has* a public obligation and that if he does not meet it, his place will inevitably be filled by someone who *does* meet it. In smaller towns and in rural communities, the doctor has a particularly hard job in keeping himself in condition to provide for his patients the very best that

modern medical science can offer. He needs here as much as in the large cities, knowledge of modern business methods which will establish him on a sound economic basis. He needs carefully to avoid medical and social ruts. They are easily gotten into, and from them extraction is most difficult.

In every town less in size than a city, there ought to be no inherent difficulty in the doctors getting together on a common professional basis for a common medical center which would usually mean a hospital. Such a hospital should be developed in the light of the principles discussed last month in this JOURNAL under "Hospital Improvement and Standardization." With or without a hospital, the doctors of the small town can establish a common meeting place, a medical club, if you please, where society meetings may be held, and social affairs may be enjoyed. This common center can be provided with a stereopticon, books, journals, and possibly specimens. By pooling the time and money and interests of all the doctors of the locality, various definite things can be accomplished. The chief medical journals can be subscribed to from the group, or each man can take a different one and file them all carefully at the library. The affair can be conducted as a joint stock company or, better, as a district or branch medical society, an integral unit in the corresponding county medical society. Such a town organization should include every reputable doctor in the town. To a varying degree, it will usually be found that business interests can be developed and bettered by such an arrangement. Different doctors can easily develop along special lines that appeal to them. Consultation and group diagnosis can be made easier. Over-lapping of work can be eliminated. Even a more economical office administration can easily be developed in many cases. Each doctor can arrange for more time off for study and recreation and travel, if he knows his affairs will be equitably cared for in his absence. In the average small town, where specialization is not too narrow, each doctor in turn can enjoy a real vacation without business loss, and with real business advantage.

The advantages of such a club or association or headquarters become more apparent the more the idea is considered. Out of such a club or local society may well develop the local hospital, which will have a solid nucleus from which to grow. Even in the beginnings, a small hospital should recognize that profits should be turned to better service. One important way to do this is for the surgical operating rooms and laboratory to have an established percentage of the income of the institution, which should be devoted to the upkeep and improvement of these departments. Doctors should recognize the advantages of pro rata investment in surgical, laboratory, library and other hospital equipment. All of this can grow naturally and safely out of a properly organized medical profession in the small town.

If you have any suggestions, or if you have had an experience in your town which offers encouragement or which presents a problem, send it in. In counsel is help. We need to develop the rural

and small town hospital. Read over what has been written in this and the two preceding JOURNALS on this topic and apply it to your own town. You may see something in a new light. Start something. Every village can have some such society as here suggested if it has as many as two doctors within hailing distance of each other.

PHYSICIAN HEADS SOCIAL AGENCIES.

The election of President Ray Lyman Wilbur, of Stanford University, as President of The California State Conference of Social Agencies at their Eleventh Annual Meeting at San Jose, on April 25, 1919, is an event of more than passing interest.

President Wilbur, after an eminently successful career as a practitioner of medicine, has identified himself with the progress of medical education of the Pacific Coast by organizing the Stanford University Medical School and by conducting its destinies as Dean until he was elected as President of Stanford University. He is one of the very few university heads on this continent drawn from the ranks of the medical profession.

During his professional career, and more especially as dean of the medical school, President Wilbur has had dealings at first hand with those important and serious sociological problems which are connected with sickness and disease. These problems have always been of particular interest to him and he has done much to meet them at the medical school by the establishment of the Social Service Department in the medical clinics and at the hospital. His watchword has been from the beginning, service to the needy patients and efficient assistance to those who need support until they are thoroughly rehabilitated. Dr. Wilbur has shown his continued interest in this organization which was started by him with so much success by remaining on the board of directors of the Stanford Clinics Auxiliary and the San Francisco Maternity, which is a charitable organization in charge of the social work in the clinics and at the hospital.

Dr. Wilbur, therefore, brings to his new duties a wide practical experience and a splendid record of past accomplishments, and the conference is to be congratulated on its selection. His election as President will serve to bind closer, as it also typifies, the intimate relationship between the physician and social welfare work of all sorts.

THE PSEUDO-MEDICAL PARASITE.

He styles himself doctor, and his habitat is San Francisco or Los Angeles or some smaller town. He is a type of a genus, or of a species, or even of a family which infests all cities and many towns. He preaches to the gullible and drops into their open mouths, succulent and juicy bits of anatomy, physiology and pathology through the medium of the newspaper and by virtue of his own private printing press.

Since Barnum's characterization of humanity, he finds it pays to advertise. And this he does with an hermaphroditic jargon of science and nonsense, well calculated to deceive the innocent and prey on the simpleminded. As all roads led to the eternal seven hills, so do all physiological

paths and pathological by-paths, under his master guidance, lead to the eternal, and never-before-discovered truth that he, even he, has a system of wonders and marvels, known scientifically to cure all physical infirmities, and heal all manner of afflictions. Ho! ye sick and simpleminded! Come ye, and learn how science, great Science, can solve your disorders and make you hale and strong.

And they come! The lame, the halt and the blind. From the byways and the highways. Seldom, even when illusion's veil is torn aside, do they glimpse the secretive African in the lumber of the quacking "specialist's" show. Yet here, true to form, ancient Mammon leads the ball and provides the stimulus for the full performance.

How ring down the curtain on the medical quack? How expose him and keep the unlearned and mentally helpless from his grasp? Some say it cannot be done. That while this race is credulous, sensation-mongering and ripe to be plucked, these things will continue. Perhaps so. And still why not recognize that the modern physician is no longer a scientific recluse, charged with preserving his knowledge and skill for his own esoteric circle. Why not start a widespread drive for personal propaganda for public health? Teach the people the truth. They, above all, are entitled to it. The doctor, above all, is fit to teach it. The truth shall make them free—free from the quack, the cult, and the ism—free to be healthy, and free from fear.

TRANSLATING MEDICAL KNOWLEDGE FOR POPULAR USE.

For some time the Editor has had in mind an article on this topic. The entire subject has recently been phrased so admirably, however, in the Vocational Summary, that the following excerpt is given verbatim from an address by F. A. Robinson before the Conference on National Safety Codes, convening at the National Bureau of Standards, January 15-16, 1919:

"It is pertinent to paraphrase and quote from an address entitled 'What Now?' by Franklin H. Wentworth, in which he says:

"Our logical course of action would seem, therefore, to be, first, to arouse the American people to a sense of their collective responsibility; and, second, so to popularize our scientific findings as to permeate with them the common consciousness and inculcate public habits of care respecting these hazards. The American people will not avail themselves of the helps we gratuitously offer them until they first are conscious of the need for such helps and then are taught how to apply them.

"Without making invidious distinctions, and without thought of any undervaluation of ourselves, we must admit that the popularizing of knowledge is a responsibility which, unluckily for the world, men of science are, as a rule, inclined to shirk. Their habits of intense and concentrated application generally make them impatient of popular writing. They are experts, and when they write they write for experts. They think habitually in technical terms, and when it comes to explaining matters to the layman they do not know where to begin. Many of the most brilliant

and successful scientists are quite incompetent to explain themselves, having neither the literary ability nor the required training for a clear, simple statement. This is, of course, quite pardonable; but accompanying this lack there should be no contempt for the popular writer; for it is from this intermediary alone that the common life of the world must gather all it knows of scientific subjects; knowledge which may distract and derange the public mind, or, on the other hand, correct, sober, and enlighten it. No one knows, who has never attempted to make clear a scientific subject, how much of ignorance may be hidden under a technical term, or how much clearer and more minute one's knowledge must be to enable him to translate such terms into ordinary English. There has been much discussion of late as to whether the profession of writing can be taught; but it is certain, at least, that if any literary effort can be bettered by special training it is that which deals in a general way with technical subjects.

"Facing then the inescapable fact that our efforts and researches can be made effective only by their translation into the common tongue, it is clear that either we must develop within our fraternity our latent aptitude as public teachers or we must appeal for aid to those who are naturally endowed with such desirable equipment."

PUBLIC HEALTH AND HIGH COST OF LIVING.

A "cost of living" survey was made in 1917 in the District of Columbia by the Bureau of Labor Statistics under Commissioner Royal S. Meeker. From this study Commissioner Meeker concludes that \$137.50 was necessary for food per adult male to maintain a worker's family in reasonable health and comfort in 1916. This made no allowance for wasteful cooking or extravagant buying. Half of the white families of Washington spent less than this amount. It is safely concluded, therefore, that the health of half the working population of Washington was impaired in 1916 by inadequate diet.

On the whole, the net result of high costs of certain types of foods, and of the food regulations of the war, has undoubtedly been beneficial. There has been a decreased use of meat and an increased use of vegetables. Also greater use of whole-grain flours and lessened fineness of milling have been beneficial. Undoubtedly the war has had a considerable effect in relieving American constipation and unloading the over-worked American liver.

Wordy and voluminous newspaper ads. by chiropractors recall the witticism of Mr. C. J. Sullivan. "Some are born great. Some achieve greatness and some have the chiropractic thrust." It is the "chiropractic thrust," of course well compensated, that seems the chief and sole stock in trade of these adroit re-adjusters of the human spine and pocket-book.

Only utterly sordid greed leads men and corporations to advertise worthless, secret and often dangerous medicines to the public. The moral crime is all the worse in that the dupes and sufferers are chiefly people who can ill afford to be swindled, either in health or money.

Special Article

SMALLPOX INCREASING IN CALIFORNIA.

By ALLEN F. GILLIHAN, M. D., State District Health Officer, Sacramento.

Smallpox is on the increase in California. More cases of this disease were reported to the State Board of Health in 1918 than had been reported during any two adjacent years of the preceding fifteen.

The cumulative graph accompanying this article shows that during the five-year period, 1913 to 1917, inclusive, the average total number of cases per year was about 480, while during 1918 over eleven hundred were reported. So far 1919 shows an ever higher rate; January 109 cases, February 160 cases, together, give a total greater than for the whole year of 1916.

Not only is this increase true for California alone; the disease is increasing throughout the world in general. A recent very important report of Dr. Bruce Low to the Local Government Board of London draws the attention of this governing body to the increased prevalence of smallpox generally over the world, and refers to its increasing virulence. Reports from the Philippine Islands show a marked increase there; 1,475 cases of smallpox with 728 deaths occurred in Manila during the second quarter of 1918. An epidemic in Eagle Pass, Texas, last winter, of over 150 cases, had a death rate of 22 per cent. (33 deaths).

Smallpox has been dormant throughout the world for a number of years, the total annual number of cases has been small, the type of disease very mild, the death rate remarkably low, and its frightfulness and loathsomeness in epidemic form unknown to a greater part of the present generation.

The severity of the reaction following old methods of vaccination, with sore arm, long continued discharging wound, and ugly scar, are painfully remembered by many as something more to be feared than the mild type of smallpox which occasionally appeared, and therefore vaccination has been gradually falling into disuse.

In several recent smallpox investigations in this state effort was made by inspectors for the State Board of Health to ascertain the number of successfully vaccinated children among those attending schools in certain districts where smallpox had appeared. It was found that, as an average, not over 30 per cent. of those in school had ever been successfully vaccinated. Many schoolrooms, with classes ranging from forty to sixty pupils, were visited, in which only three or four of the children had ever been successfully vaccinated. This situation was usually found in the lower grades; in the higher grades and high schools the proportion of successfully vaccinated frequently went as high as 50 to 60 per cent. In one school of about twelve hundred children in a certain city where smallpox had suddenly developed it was found that only 6 per cent. had ever been vaccinated.

All Ages Susceptible to Smallpox.

Before vaccination was introduced in 1798 small-

pox was a disease of childhood, all persons reaching adult life having had the disease during the first few years of life. In certain diseases such as scarlet fever, age develops immunity, and if one passes through childhood without having had the disease it is most improbable that he will take it later in life. With smallpox this is not true: there is no immunity against the disease except that acquired through a previous attack or through successful vaccination. The protection conveyed by one attack does not hold absolutely true in every instance, for once in about twenty thousand cases one hears of a person having a second attack. However, this proportion is so small, it can be safely stated that one attack protects. So much can not be said for vaccination. The protection conveyed by vaccination, although as complete as that conveyed by an attack of smallpox, is much shorter lived than the protection following an attack of the disease; at best a primary successful vaccination in the great majority of cases gives protection against smallpox for several years, but rarely for life.

Vaccination Protects for a few Years Only.

The majority of the adults of the present generation were successfully vaccinated in childhood. This protection is gradually running down. Repeated instances are noticed of smallpox occurring in adults who had been successfully vaccinated many years before. This does not mean that the vaccination was of no value; but it does mean that protection from vaccination is comparatively short lived—several years at most in the majority of cases.

Of the cases occurring in California during 1918, careful histories are available for over seven hundred.

Vaccination Histories in 770 Smallpox Cases in 1918.

Vaccinated successfully 2 years ago.....	1
Vaccinated successfully 5 years ago.....	2
Vaccinated successfully 6 years ago.....	1
Vaccinated successfully over 7 years ago.....	48
Successfully vaccinated	52
Never successfully vaccinated.....	718
Total where histories were obtained.....	770

Age Incidence in 770 Smallpox Cases in 1918.

Vaccinated successfully—	Never vaccinated—
10 years old.....	0 to 10 years.....
14 years old.....	11 to 20 years.....
21 to 30 years.....	21 to 30 years.....
31 to 40 years.....	31 to 40 years.....
41 to 50 years.....	41 to 50 years.....
51 to 60 years.....	51 to 60 years.....
Age given as child or adult	Over 60 years.....
Vaccinated	Age given as child or adult
	Not vaccinated

These tables show that among the vaccinated practically all the cases were over twenty years of age, while among the unvaccinated over three-fourths were under twenty years of age.

Of the vaccinated who had the disease it will be seen that over nine-tenths were vaccinated over seven years before—in fact, in several cases the vaccination was forty years before. In other words, vaccination in childhood had protected these fifty-two cases for a number of years but their protection had gradually run out. In many people vaccination carries protection for long periods or even for life; if this were not so the proportion of vaccinated to

unvaccinated would have been quite different from that of 52 to 718.

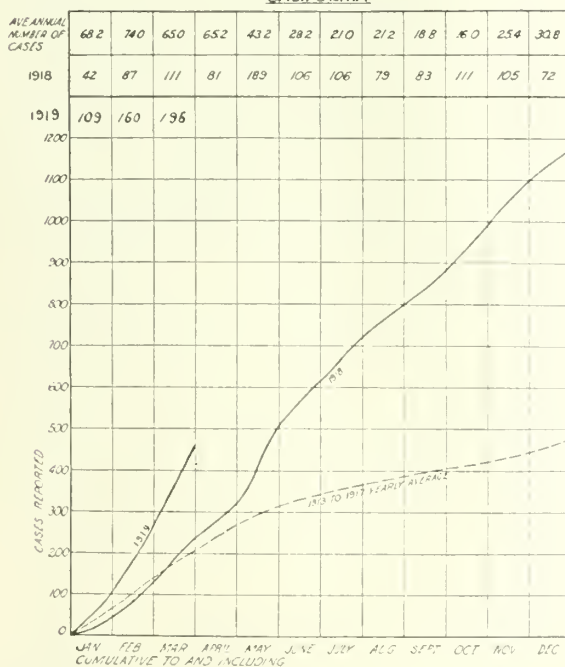
Factors Favoring Spread of Smallpox.

A century ago smallpox was a disease that was always present; it caused from one-fifth to one-tenth of all deaths each year, but it carried with it individual immunity in those who recovered. Practically the entire adult population consisted of those who had lived through the disease in early life and were protected against further attack.

Vaccination changed this. Smallpox, as an ever present disease with its high death rate, was gotten rid of. The immunity which was good for life, through having had the disease, was replaced by an immunity through vaccination good for only a few years.

Unfortunately little effort has been made to renew this immunity through revaccination later in life, and during recent years less and less attention has been paid to vaccination of children in early life, until at the present time there are probably more people in the world who are susceptible to smallpox than there have been at any time during the past few centuries.

SMALLPOX MORBIDITY
FOR
CALIFORNIA



Errors in Diagnosis.

An important factor in the spread of smallpox is that many physicians now in practice have had no personal experience with the disease. They have had to depend upon textbook descriptions from the older writers, and mistakes in diagnosis were bound to occur. In following a textbook description of an epidemic disease the reader unconsciously, and naturally, attempts to keep the theoretically typical case in mind, forgetting for the moment that before an epidemic gains headway atypical cases are more frequent than typical; and it is only as the epidemic progresses that cases become more and more typical. It is usually through such atypical cases, lost in

mistaken diagnosis, early in an outbreak, that epidemics gain headway.

Several times while investigating smallpox, the writer has heard the attending physician state: "This can not possibly be smallpox because there has been no secondary fever." On informing the physician that such a case as the one under consideration, giving a history of two or three days' severe illness, followed by a pustular eruption, which on examination was found to be more profuse on the face and extremities than elsewhere on the body could be nothing else than smallpox, the invariable reply has been: "Then the textbooks are all wrong because they state that in smallpox a secondary fever follows the appearance of the eruption." It has been necessary to explain that the secondary rise in temperature was suppurative, depending on the extent of the eruption, and did not always appear.

Another error in diagnosis occurring with less frequency and with less harm from a public health viewpoint is where the diagnosis of smallpox is made solely upon one point, for example on the pustular appearance of the eruption. Upon more than one occasion it has been impossible to convince the attending physician that such a case was not necessarily smallpox. A prodromal illness of two or three days, the progressive character of the eruption which followed, with preference for face and extremities, when compared with an eruption which usually appears suddenly, without prodromal illness, with preference for the trunk rather than the extremities, and made up of successive crops of easily ruptured vesicles, should be sufficient in the vast majority of cases to identify the one as smallpox and the other as chickenpox. Enquiry into the progress of the history of a case is of the utmost importance in identifying smallpox. It is indeed surprising how often this is neglected in arriving at a diagnosis. Also an inquiry into history of previous illnesses is very important. Chickenpox practically never occurs twice in the same individual and the definite history of a previous attack is of great assistance in ruling out this disease.

The State Board of Health recognizes that diagnosis in the irregular and atypical forms of smallpox at times is very difficult. It employs experts trained in the recognition and control of this as well as other epidemic diseases. It is willing to send one of these experts at any time to assist local health authorities in arriving at correct diagnoses and in instituting methods for the control of these diseases.

The Negligent Health Officer.

The neglect of the local health officer to fully investigate all suspected cases, in many instances, has been the means whereby smallpox has gained foothold in the territory under his supervision. An instance of this occurred last summer when a health officer, on seeing a case which had been reported to him as smallpox, declared it to be chickenpox and did nothing further about the matter. Several months later one of our district health officers, while investigating an outbreak of smallpox in a near-by city, visited this community and found that there had been between 150 and 200 cases of smallpox there during the summer. Three children were

removed from school in the crusting stage and ten houses were placed in quarantine the first day in the community. Not only was the smallpox in the near-by city traceable to this community but before the investigation was completed and the epidemic checked it was discovered that outbreaks of the disease in seven other localities were also traceable to this same original community. Happily the active work on the part of the health officers of these other localities effectively checked the further spread of the disease.

Missed and Concealed Cases.

The missed case—one that has not been ill enough to require the services of a physician—is another factor in the spread of smallpox.

Although these mild cases usually transmit the disease true to type, several times the writer has seen cases of marked severity contracted from other cases in the same house which were so mild that the patients did not even take to bed. The case that is concealed for fear of quarantine is a matter of entirely different moment: these people are invariably most careless in the transmission of the disease and should be shown no sympathy. During the prevalence of mild smallpox these concealed cases are frequent, and it requires a great deal of work on the part of the health officer to search them out.

Vaccination—the Only Protection Against Smallpox.

It is not intended in this article to enter into any lengthy discussion about the protective value of vaccination. The reviewing of the returns from those countries which have adopted compulsory vaccination, comparing the annual death rate from smallpox for the century or half century before vaccination was adopted with the annual death rate from smallpox for the same period of time following the adoption of vaccination, should convince any one capable of being convinced that the sudden great change in the death rate from this disease was due entirely to vaccination.

When the statistics of the recent world war are compiled they should be most convincing in regard to smallpox, because this is the first time that armies on both sides were thoroughly vaccinated against the disease: amongst the many million of men involved, deaths from smallpox have been practically unknown. Compare this with the last war over the same ground—the Franco-Prussian War of 1870-71—where the Prussian army, with over one million in the field, all thoroughly vaccinated, lost only 297 from smallpox; while the French army, of which only about one-third was successfully vaccinated, had over 23,000 deaths from this disease.

Modern Method of Vaccination.

That any one familiar with modern surgical technique should adopt for a particular operation a method, not only obsolete, but actually harmful, is, to say the least, inexcusable. The public is acquainted with recent advances in modern aseptic surgery and is justified in the stand which it has

taken in opposing vaccination, on account of the very unsatisfactory way that it is frequently done.

The State Board of Health realized the need of instruction in this matter when they caused to be included in the "Regulations for the Prevention of Smallpox" full instructions for the technique of vaccination. This recommended method was thoroughly tested for several years before being adopted by the board. Many thousand vaccinations by this method have proved it to be the most satisfactory. The scarification is painless, it is done instantaneously, if instructions are followed the vaccination does not produce harmful results, discharging wounds and sloughs are unknown, and resulting scars are small. The writer recently saw a number of vaccinations made by him by this method in 1913; the scars were small and inconspicuous, approximately the size of the head of a lead pencil, but met with all the requirements of successful vaccination.

Certain things are of utmost importance in performing vaccination. The area of scarification should be as small as possible, not over one-twelfth of an inch in diameter. Scraping the skin with a scalpel over a considerable area or cross-scratching with a needle should be prohibited by law. Keeping the wound exposed "to dry" is a most dangerous practice; the patient may fan dust on to the moist surface, or worse, may unconsciously blow a fine spray of saliva over the wound. The use of a celluloid or metal vaccine shield or a bunion plaster or rolls of gauze to cover the wound are most harmful. They tend to retain moisture and to produce local congestion. The best way is, immediately following the insertion of the vaccine, to cover the wound with a square of sterile gauze, two to three layers thick, held down at the edges by strips of Z. O. plaster. The square should be of such size that the plaster does not cover any one of the scarified areas. Bandage or plaster should not be carried around the limb, as this would retard circulation. The patient should be carefully instructed "Don't get the dressings wet," "Don't scratch the wound," "Don't pull the dressings off" and to return in so many days, depending upon whether the operator was looking for an immunity reaction or was expecting a primary or secondary "take."

Recapitulation.

The effort of this article has been to show that smallpox is increasing throughout the world, not only in number of cases, but also in death rates, and that California shares in this increase.

The mild form of smallpox and the severe reactions following poor methods of vaccination are largely responsible for the neglect of vaccination which has become almost universal.

Vaccination is the only protection against smallpox, but this protection lasts for only a few years, and must be repeated at intervals if an individual desires to avoid the smallpox.

Methods of vaccination are recommended which do not produce harmful results. And the statement is now made in closing that in the opinion of the writer vaccination should be done by spe-

cial officers delegated to that duty, that it should be done by prescribed methods, and that it should be free to all people.

Original Articles

SOME OBSERVATIONS NOTED IN THE WORK OF THE MEDICAL ADVISORY BOARD OF THE HEALTH COMMISSION.

By GEO. L. COLE, M. D., Chairman, Los Angeles.

When it became known that there was to be an epidemic of influenza in Los Angeles a number of medical men of the city, including Drs. H. G. Brainerd, W. A. Edwards, S. S. Salisbury, W. L. Wills, S. D. Brooks, J. Rollin French, Hubert True, E. A. Ingham and myself, were asked to meet the Health Commissioner, Dr. L. M. Powers, in the office of the Mayor, and later were appointed as an advisory board.

The epidemic was existing in New York, Philadelphia, Boston and other eastern cities to such a degree that it made us all feel aware of the fact that we were to have here an epidemic of no small dimensions to cope with, and the question uppermost in the minds of Mayor Woodman and Dr. Powers was, "What could be done to lessen the number of deaths that were necessarily bound to occur in the City of Los Angeles?"

Previous to this time Dr. Powers had communicated with Dr. Royal S. Copeland, Health Commissioner of the City of New York, and with Dr. Wm. C. Woodward, Health Commissioner of the City of Boston, and others, asking for suggestions as to the best way of handling the epidemic in Los Angeles and asking that they recount to him somewhat of the work that had been done in eastern cities.

Various methods had been pursued, and in New York City quite a different method of procedure had been established from that in Philadelphia, Washington and Boston.

One fact stood out in grewsome prominence in these reports, namely, that Los Angeles must give attention and foresight to the fact that a large force of employees would be necessary to dig graves for those who died of the disease.

We have since learned to be true that in many instances relatives have been called upon to dig graves for their loved ones, and even by doing this the accumulation of dead bodies in storehouses had been necessary as an adjunct to the undertaking establishments of eastern cities.

I think the foregoing fact is sufficient to inform you all that we, as a body working in conjunction with your health department, fully realized the grim task laid before us.

The question asked by the Mayor was "How can the number of deaths be limited to the smallest number?"

It was at this time pointed out by some members of the Advisory Committee that while it might not result in greatly lessening the number of cases, to close theaters, schools and churches, yet such a procedure would result in slowing down the onset of the epidemic to the point where, on account of the large number of physicians and nurses having gone into the service, the remaining ones could

care for the sick to a better degree, and the hospitals would not be overcrowded; that a municipal hospital might be established for the care of those unable to pay for hospital service, and that in addition to this was the hope that by so doing the mortality of the epidemic might be to some degree lessened.

At the outset let me say to you that the task of the Health Commissioner and the Advisory Board has not been from all respects an easy one: *no drastic* measures can be introduced into a city as full of happiness and activities as Los Angeles was at the beginning of October without curtailing such happiness and enjoyment and without treading upon the toes of many that would be affected by losses of revenue from their institutions.

On the whole, however, I wish to say that when the matter was placed frankly before the theaters, churches and the school board they as fully acquiesced in their willingness to help as could have been expected.

Many seemed to think that the closure would be for a week; some for two weeks; many felt that it was a matter that would be speedily brought to an issue. Many of the theater men and moving picture men later on complained because after three weeks of closure there were more cases reported and more deaths existing from day to day than when the closing ordinance was promulgated. Their reasoning, therefore, was that the closing had done no good.

To you, as medical men, it does not seem that such a view could have been taken. Nevertheless such was the case, and they thought that as no good had come of the closing, everything should be opened at once.

There was a unanimous opinion of the Board that the theaters and churches should be closed, and *remain* closed until the crest of the epidemic was well passed.

With regard to the schools there was at first not a unit of opinion; some had the idea that schools, being under the inspection of medical attendants and under the care of teachers with more than ordinary intelligence of the masses, could be so managed as to eliminate the carriers of the disease, and that it would be better for the children to be in the large airy school rooms than in their own homes. However, when it was known to be a fact that the medical service in the schools of Los Angeles was not sufficient to inspect the schools oftener than every fourth or fifth day if they should work diligently, it was concluded to close them as the churches and theaters were to be closed.

Another item to be considered in this feature was the fact that the theater people would certainly have more just reason to complain if private institutions, like the theaters and moving picture houses, were to be closed, and public institutions like schools were to remain open.

It seemed to the committee after due consideration that it was *wisest* to include the schools with the ban of the theaters and churches.

As time went on—week after week—there came a persistent and insistent demand of the theaters and moving picture places that we were keeping

them closed longer than any other city in the United States; that we were discriminating against them while we were allowing the avenues of other sources of infection, like street cars, stores, drug stores, restaurants and commercial houses of all kinds to remain open. It is to be remembered that theaters and picture houses are places of amusement belonging to the artistic and recreative side of life, and are lines of business that can be better cut down than can the regular avenues of industry, such as commercial stores of all grades, which are necessary to maintain the regular life of the city; the grocery stores, markets and the drug stores were necessary to remain open in order that medicine might be procured for the sick, and food for the city provided; and while your committee regretted the loss accruing to the proprietors of theaters and picture houses, it seemed the wisest thing to do under the circumstances.

If you will recall, the theaters, churches and schools were closed *early* in Los Angeles—something like ten days or two weeks before such institutions were closed in San Francisco. Largely because of this the *peak* of the epidemic was not reached as rapidly as it was in San Francisco and in cities where institutions of the kind were not closed *early*.

In other words, the disease did not *burn itself out so rapidly* as it did in those cities where the ban was put on later in the course of the epidemic.

As you all know, great pressure was brought to bear upon the health department and the committee, not simply to *advise* the use of masks, but to *compel* their use through legal enactment, such enactment to be enforced by the police department of the city.

Your Health Commissioner and those associated with him have, I think, justly proven by the results that have been obtained in Los Angeles, in comparison with cities where the mask has *been* used, that it was wise *not* to enact a law making the use of masks mandatory in Los Angeles.

It is *one* thing to arrest people; place them in jail and fine them for failing to comply with the laws that have been found necessary and justifiable. It is quite *another* thing to cause the arrest of several thousands of people for an experiment that has not been proven to be of value *commensurate* with the amount of disturbance caused by the enforcement of such laws as would be necessary for legal enactment.

There are some in the city who, at the present time, feel that the epidemic could have been lessened and stopped by the use of universal masking. The reports that come from the State Board of Health in California; the reports that come from investigators who have been sent from the *Public Health Service in Washington* to investigate as to the amount of good that has been accomplished by the masking in cities where it has been made compulsory, seems to be unanimous in the conclusion that the amount of good accomplished by it is *not* commensurate with the necessary disturbance caused by the enforcement of such laws.

Indeed, the report comes that in those cities where masking has been strictly enforced, the mor-

bidity and mortality has not been affected one way or the other.

Therefore your committee has *no* apology to make for having failed to advise the promulgation and enforcement of such an ordinance. Feeling that *some* good may be due to the use of masks, your committee from the first advised earnestly, and *entreated* the public to mask. This advice was practically disregarded except in the sick room.

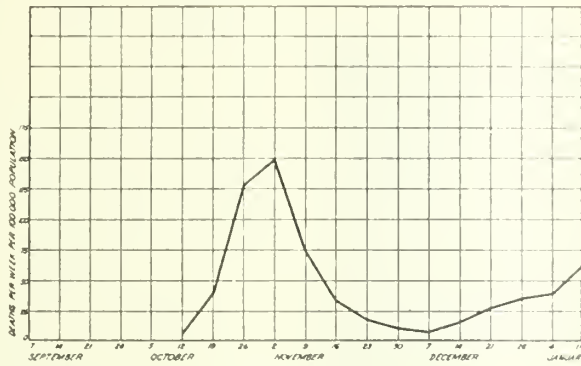
With regard to the use of vaccines, your committee also has *advised the use of vaccines*, hoping that there might be some usefulness in them.

As the matter stands to-day it is subjudice. So far as we have been able to determine, and so far as reports have come from the Public Health Service in Washington, they are unable to say that there is any considerable amount of virtue to be derived from the Leary vaccine, which, as you know, is a product of the Pfeiffer bacillus alone. The Public Health Service of Washington comes to the conclusion that it is *not* a prophylactic and has *no* therapeutic value.

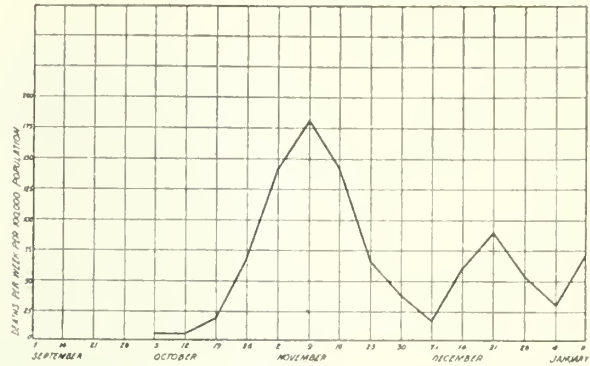
That at first it *seemed* to be of marked prophylactic value was not surprising. In one hospital in Boston it was reported to the committee appointed to investigate the subject, that out of thirty-six nurses, twenty-five having *not* been vaccinated contracted the disease, and eleven who *had* been vaccinated, had entirely escaped the influenza. The Public Health Service thought this instance alone to be worthy of investigation and, if true, to be evidence of the prophylactic value of the vaccine.

However, upon inquiring closely into the facts it was found that the twenty-five nurses in the institution had acquired influenza, and that these twenty-five having had the disease, the eleven remaining were vaccinated. None of these came down with influenza. However, eleven out of thirty-six is not a large proportion for immune subjects, and inasmuch as the vaccination had not taken place until after the twenty-five of the number had acquired it, it was reasonable to suppose that these eleven were immune in this instance, the number being a small percentage of immunes. Such evidence is *valueless* in establishing the efficacy of this material for vaccination, and so when other institutions were investigated, in some of which the disease had not found entrance to the institution, in wards where alternate beds were subjected to vaccination and alternate beds were unvaccinated, it was found that the vaccinated ones contracted the disease in the same proportion. Considering such facts it is easy to see how, in the rush of procuring a prophylactic fluid, many were justly misled, being conscientious in their view as to its efficacy. However, it is the duty of the United States Public Health Service to go more deeply into such conditions than is usually done by medical men and nurses, and the consensus of opinion seems to be that it is practically inert as a prophylactic measure.

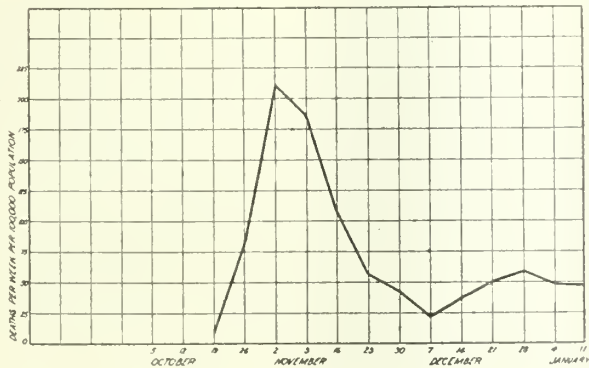
As to the mixed vaccines, as I understand the proposition at the present time, the Public Health Service is not prepared to express an opinion as to the merits or demerits of the mixed vaccines.



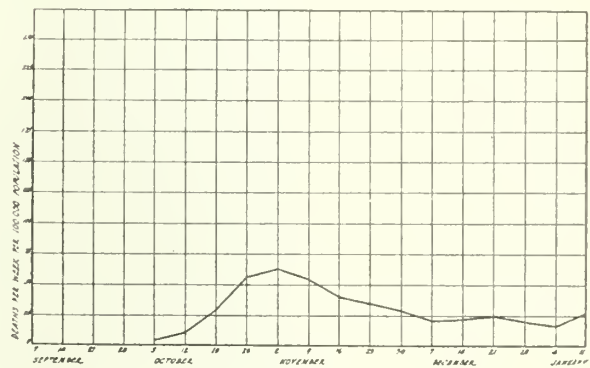
San Francisco



Stockton



Sacramento



Los Angeles

Influenza and Pneumonia death rates per 100,000 population by weeks as published by the California State Board of Health.

They have, however, placed themselves on record as saying that if properly used the vaccines probably do no harm.

Now a word as to what has been accomplished in Los Angeles. Please remember that the closing of theaters, churches and schools occurred very early in the epidemic. Two municipal hospitals were immediately provided to care for the indigent sick—one on Yale street, with a capacity of two hundred beds, and another at San Pedro with a thirty-bed capacity. The County Hospital had, I understand, a capacity for caring for about two hundred influenza patients. There was a nurses' directory established for the public at the Nurses' headquarters at the Normal Hill Center. Five doctors were supplied by the U. S. Public Health Service through Dr. Billings and a number of extra men were employed by the city to care for the poor.

As to the results accomplished by these procedures! If when our epidemic has become a recollection, you find that the death rate in Los Angeles has been less by far than in any other city of its size in the United States, you should at least

refrain from criticizing the methods adopted here.

There are some items which would excuse a larger death rate in Los Angeles than in other cities of similar size, had not something been done by your health department that had proven effective. For instance, we have streaming into Los Angeles an average of more than one thousand people daily from the east. A very large part of influenza comes to us in this way—they take up their residence in hotels, boarding-houses and apartments, and many people come in sick, and many develop the disease within twenty-four hours after arrival. In addition to this the Los Angeles City and County Hospital is supplied with patients from a population of 300,000 *outside* of the City of Los Angeles, taking in all of the towns in the county of Los Angeles, and people from her rural districts as well. The deaths occurring there are accredited to Los Angeles City. There is a Japanese population here, and a Japanese hospital has been established to which patients are brought from all over Southern California. Not an inconsiderable number of deaths have occurred in this institution and have also been accredited to

the City of Los Angeles. The deaths that have occurred at Ft. McArthur and every military camp within the City of Los Angeles have also been accredited to Los Angeles.

In fact there are many reasons why the death ratio in Los Angeles should have been much higher than that of other cities of the same size. Were it not for the fact that the closing was done early and effectively, that the sick were cared for judiciously by reason of slowing up of the epidemic, and by the keeping closed for a longer period than in many other cities, we could have justly expected a high death rate. A large element contributing to this happy result in Los Angeles undoubtedly has been the fact that there has been a well-organized health department, ready for effective work, and that the employees of the department have become so endeared to their faithful chief, during the many years of his occupancy of the office, that they have turned in and worked diligently, untiringly and faithfully to accomplish the work that has been imposed upon them by this epidemic, which is unparalleled in history during the lifetime of any of us present here to-night.

The following is a report of the Bureau of Census, Washington, D. C., of deaths from influenza in cities which approximate the population of Los Angeles, and in addition thereto New York City and Philadelphia, for a period of ten weeks from September 7 to November 16, inclusive:

Per 1000 for 10 weeks ending Nov. 16, 1918:—

Los Angeles	2.7
Boston	5.6
Buffalo	4.7
New Orleans	5.4
San Francisco	4.4
Washington, D. C.	5.0
Pittsburgh	5.3
Baltimore	6.2
Philadelphia	7.3
New York	3.9

THE INDUSTRIAL DISABLED.

Each year of the last fifty years the industrial demands of this Nation have resulted in a far greater number of disabled men than the total list of our casualties from this war.

Every year witnesses the sacrifice of more lives in industry than were lost in battles.

And yet it took the war to awaken the national conscience to this enormous human wastage.

We have spent millions to provide the machinery for salvaging the disabled soldiers. Does not the conservation of man-power for the economic strife demand equal provisions, for the industrial disabled?—"Carry On."

ABSORPTION WITHOUT NEEDLING OF CATARACTOUS LENS, DUE TO PUNCTURED WOUND.

By J. H. McKELLAR, M. D., Los Angeles.

The report of a case of "accidental traumatic cataract from a pointed object thrust into the eye, without destructive ocular complications," by Dr. C. S. Nagel in the April number of the JOURNAL, and his statement that such cases are exceedingly rare, prompts me to report one of this character which occurred in my practice.

Jan. 19, 1918. Patient—Boy, six years old.

History—While playing with a hat pin, several days before, had been struck on the right eye. Complains that he has not been able to see with that eye since.

Exam.—Pericorneal injection slight. Punctured wound of cornea. O. D. Iris apparently uninjured. Lens swollen and opaque. Tension normal.

Treatment—Rest, general and ocular. Ice water compresses one half hour, every three hours, at first. $\frac{1}{2}\%$ sol. atropine sulphate instillation, three times a day.

Result—The lens absorbed uninterruptedly for 9 months when the pupil was entirely clear, the eye free from irritation, and the tension normal. Vision was approximately normal with correcting lens. At no time while this process was taking place was the tension increased, or was there more reaction than would be the case after a needling operation. The boy had accidentally done that, which, had it been done intentionally as a surgical procedure, might be regarded as a very successful discission.

Cockroaches are a persistent and widespread pest which may be responsible for more disease than we now believe. They eat nearly everything, including dead animal matter, cereals, all food materials, woolens, leather, bookbindings, and other roaches. They soil everything they touch and leave a nauseous persistent odor. They undoubtedly carry infection to food and are suspected of being carriers directly of several diseases. Their only natural enemies are a species of ichneumon fly and a tree toad. They are wary of poison, hard to catch or kill and prefer the dark. Pyrethrum smoke paralyzes but does not kill them. Sulphur repels them. One-half per cent. phosphorus in a paste of sweetened flour will kill many of them. Carbon bisulphide fumes, one pound to 1000 cubic feet of room will destroy them. This is very inflammable and extreme care is necessary in its use. The same is true of phosphorus. Plaster of Paris and flour, 1 to 4, with a saucer of water close by, is effective. The bodies of dead roaches are eaten by their survivors. A fruit jar containing a little stale beer, with a tipping lid and easy approach, will also catch many.

Up to the end of October, 1918, 1,305 totally blinded soldiers and sailors had been admitted to the Blinded Soldiers and Sailors Hostel at St. Dunstons (in England) and its annexes, of whom 587 have passed through; 535 of these have set up for themselves, and 52, chiefly owing to mental or physical disability have left without being established.

Officers of the Medical Society State of California



CORNELIUS VAN ZWALENBURG.

Dr. Cornelius Van Zwalenburg, our past president of the Medical Society, was born in Kalamazoo, Michigan, November 17th, 1862. His forefathers came from Holland. As a boy he was brought up on a farm, and later attended a preparatory school at Hope College, from which he graduated in 1880. Like many other members of our profession, he was for a while a school teacher, but took up the study of medicine and graduated from the University of Michigan in 1885.

Soon after entering private practice, he was elected secretary of the Academy of Medicine in Kalamazoo. This brought him in contact with the best element of his profession throughout the state. The good work done in his profession and the faithful service performed as secretary prompted his confreres to confer upon him the honor of president of the Academy in 1899.

During these years he was a pioneer in his section of the state in early Listerian surgery and laid the ground work for the reputation and experience which marked his after years.

In 1900 he came to California and settled in Riverside, where he has upheld the best standards of the profession and served the public with the

highest form of intelligent sympathy and efficient work. He has been an active member of the local county society and was president of the Riverside Chamber of Commerce. He is, of course, a member of the State Medical Society and a Fellow of the American Medical Association. He is also one of the founders of the American College of Surgeons.

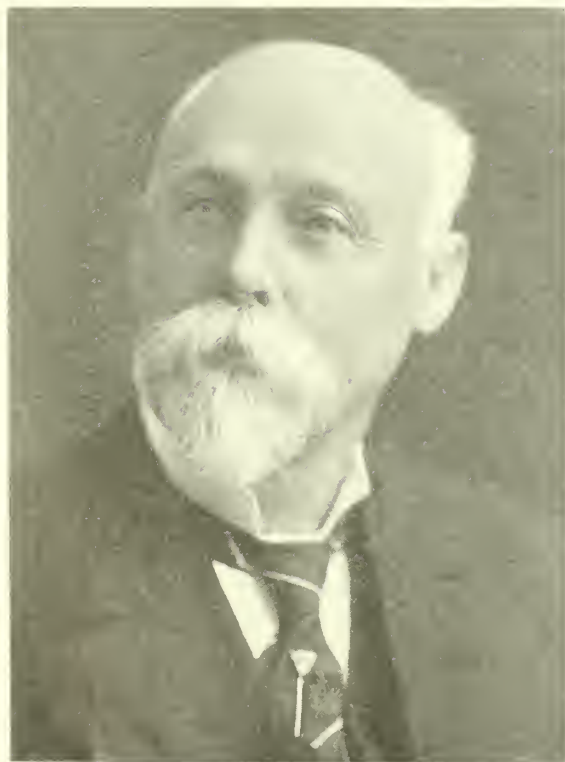
In the year 1907 he was elected a member of the Council of the Medical Society of the State of California, and was one of the most faithful attendants at their meetings. In the year 1918 he was elected to the distinguished position of President of the Medical Society of the State of California. In this capacity he has ever stood for the high principles of medicine and has held before us our larger civic duties and our obligations to the public. He has taken an unusual interest in the workings of the society and assisted very materially by advice and suggestions in the conduct of the State Society's central office. His wisdom in the deliberations of the Council have made him an indispensable member of that organization. He is still active in his profession, still can render service to humanity; he is still standard bearer in the cause for human betterment.



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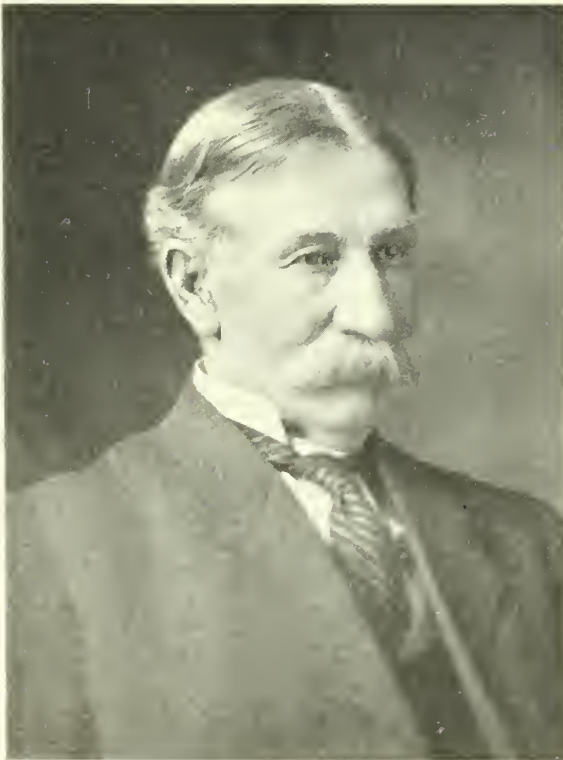
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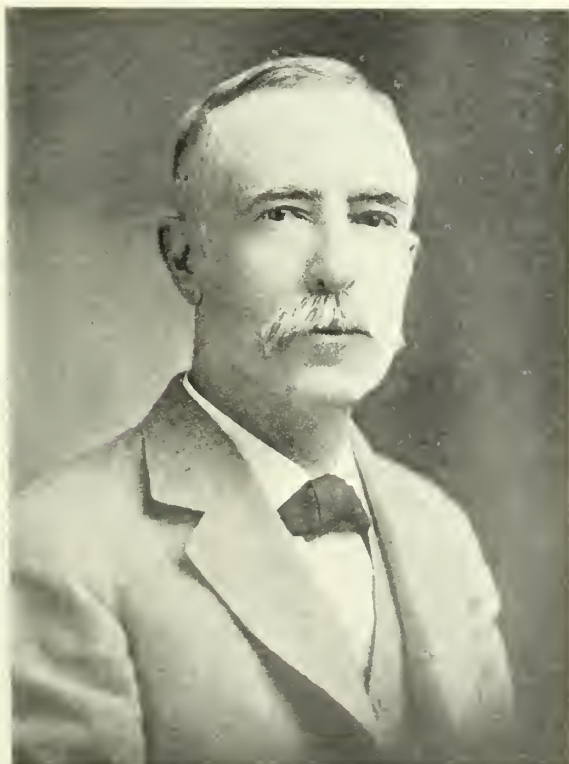
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LOCALIZATION OF FOREIGN BODIES IN THE EYE.

By W. W. BOARDMAN, M. D., Associate Professor of Medicine, and M. M. DONOVAN, M. D., Assistant in Medicine Stanford University Medical School, San Francisco.

Absolute accuracy in the localization of foreign bodies in, or near, the eye is of the utmost importance to the patient and to the physician. In a few cases, the foreign body can be seen by the direct method of examination, but in the majority the X-Ray is relied upon to determine the presence of dense foreign bodies and to locate their position in relation to the eyeball.

For this localization, many methods have been proposed, ranging all the way from the crude method of examining right angle plates to the more accurate methods of localizing the foreign body in relation to some fixed object by the method of triangulation.

To facilitate the application of this method, several types of apparatus have been put upon the market. All of them are correct in principle but the majority of them apparently admit of such gross errors in operation that their findings cannot be absolutely depended upon. The apparatus developed by Dr. Sweet has reduced these possible errors to a minimum and, in our opinion, far surpasses any other. Of course, the accuracy of any procedure is directly proportional to the care with which it is applied.

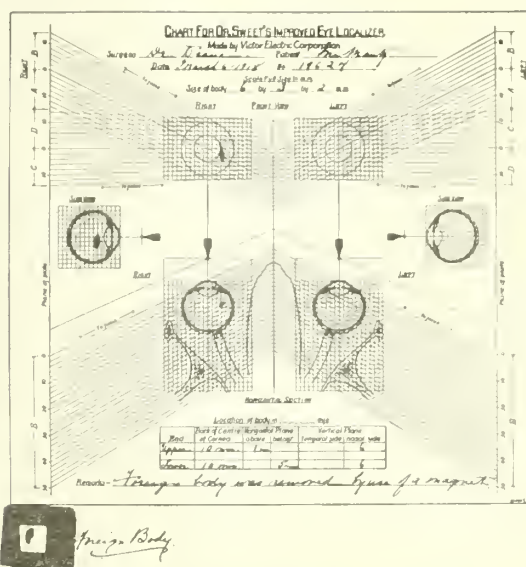
In the routine handling of suspected cases, the Sweet apparatus is always used, the plates thus obtained not only determining the presence, or absence, of a dense foreign body, but enabling an immediate localization without further exposures.

The localization is charted as shown by reductions given below and the surgeon is able to view the foreign body in three planes in its actual size and in its relation to the eyeball and orbit.

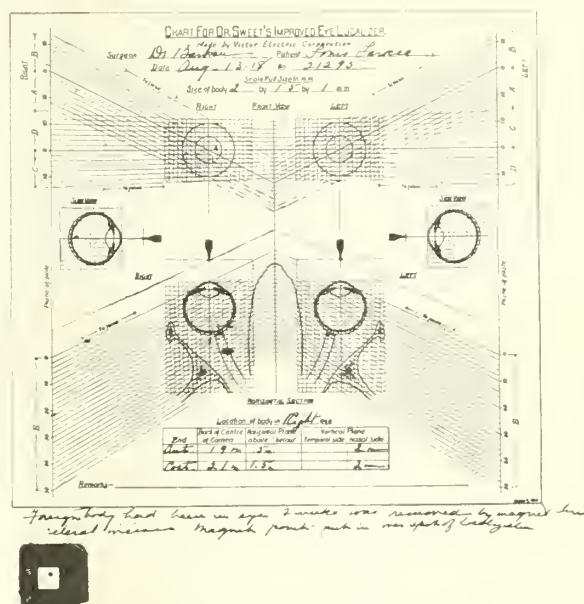
In the past few months, the following cases have shown foreign bodies:

No. Patient	Doctor	(Size) In Eye	(Size) In Orbit	
1	G. S. Deane	5x2, 5x2		Removed by Magnet
2	Mr. H. Barkan	1x1x2		" " "
3	Mr. W. Barkan	2, 5x1, 5x1		" " "
4	Mr. M. Deane	6x3x2		" " "
5	E. S. Deane	3x2x1, 5		" " "
6	F. L. Deane	2, 5x1x1, 5		" " "
7	A. F. Barkan	1x1x1		" " "
8	L. L. Barkan	2x1, 5x1		" " "
9	Mr. B. Franklin	1x1, 5x2		Enucleation
10	H. E. Franklin	1x1x1		Enucleation
11	C. D. Deane	3x1, 5x1		Enucleation
12	E. R. Barkan	5x1x4		Enucleation
13	G. H. Barkan	4x2, 5x2		Not removed
14	Mr. H. McKee	3x3x3		Not removed
15	Barkan	4x2x2		Not removed
16	P. Q. Smith	(3)2x2x2		Not removed
17	Mr. F. Barkan	16x5x4		Removed
18	E. H. McKee	1, 5x1, 5x1		Not removed

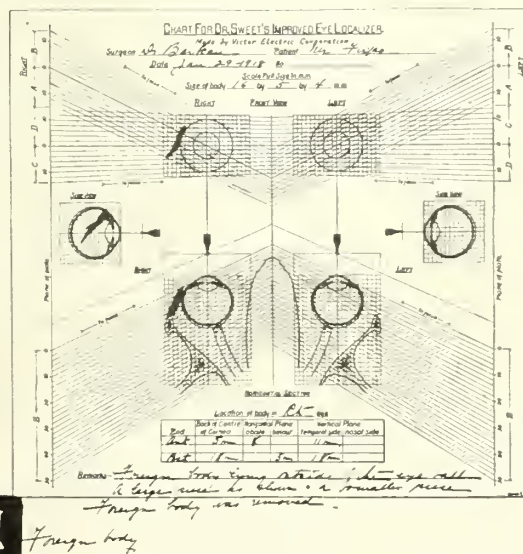
Group I. (Nos. 1-8) Cases in which a foreign body was localized in the eyeball and removed by use of a magnet through an incision made close to the point of localization. This includes the first eight cases of the Table. In the last of these cases, the foreign body had remained two weeks in the eye, but was removed without difficulty and removal was followed by speedy disappearance of symptoms.



Case No. IV.



Case No. VIII.



Case No. XVII.

Group II. (Nos. 9, 10, 11, 12) Cases in which a foreign body was localized in the eyeball, and not removed by the magnet. In the first two cases, attempts to remove them were unsuccessful, owing to the length of time the foreign body had been in the eye. In three of these cases, the foreign body had remained in the eye over a year and localization had been made elsewhere placing the foreign bodies outside the eyeball. In all, enucleation was done and in sectioning the eyes, the foreign bodies were found as localized. In the fourth case, the foreign body was babbitt and preliminary attempt to remove it by use of the magnet was unsuccessful.

Group III. (Nos. 13, 14, 15, 16) Cases in which a foreign body was localized as lying in the orbit. In one of these cases (No. 16), there were three foreign bodies seen, one apparently lying imbedded in the optic nerve. The patient refused operation.

Individual Cases Not Belonging to Any of the Above Groups.

In one case (No. 17), the patient came complaining of diplopia. A large foreign body was found lying outside the eyeball, interfering with the external eye-muscles. It was removed and the symptoms cleared up.

In one case (No. 18), a foreign body was localized as lying in the lens-capsule. There was evidence of a traumatic cataract; no acute symptoms; foreign body was not removed.

NAVY BASE HOSPITAL NO. 3.*

By GUY COCHRAN, M. D., Los Angeles.

We went to war! Doctors, nurses, corps men, mess attendants—all tore away from everything we cherished, and went to war. On our way we reported at Philadelphia, expecting to go aboard ship, and be sent immediately; but day after day we waited there—always sure that in another day we would be ordered over seas. Weeks dragged like years, and we were full of self-pity and egotism, for this was the first war we had attended, and though we had full knowledge of our own importance, we had no conception of what a stupendous company we had joined, much less of what war really meant.

Finally orders came, and we were sent across in various transports, to reassemble in Edinburgh, where we took over a hospital in Leith, the port of Edinburgh on the Firth of Forth.

Ten years ago the city of Leith constructed a splendid group of buildings for its "poor house." When the war came the British Government took it over for a war hospital. So it had been equipped with operating rooms and other constructive changes, and was a splendid hospital in full operation.

We took it over with a considerable number of patients; our supplies arrived; the capacity of the hospital was enlarged to 1000 beds, and we were at work.

Thanks to the foresight and untiring effort of

Dr. Rea Smith, and the generosity of our Red Cross and Navy, we were equipped with abundant and well-chosen supplies—all of it we took with us—and luckily, for Great Britain was stripped and we could not have obtained anything over there.

We were able to draw food from the two Navy bases near by, and had considerable quantities of staples with us. So our patients had such excellent food that it was most difficult to get rid of them. When we were sending out transfer patients, there were usually about half of those who were to go found full of pains and in bed, or else hiding in the garden somewhere until after train time. Our laboratory and X-ray plants were most excellent, and, in fact, every department was well equipped; and with such buildings and food and nurses and corps men, we doctors had no excuse for not doing the best work of which we were capable.

By this time too we could see a little clearer, for we were close to war, and, as we got to work, were ashamed of the egotism of our Philadelphia period, in our greater knowledge of what others were going through, and before the type of men we were caring for, who were so splendid in their sacrifices.

By arrangement (though a Navy hospital) we had 250 beds reserved for the British Army. I wish you could see the arrival of a train-load. These convoys usually came to us about midnight. For example: A load from the Cambrai front were in our beds thirty-six hours after they had been picked up on no man's land. They had been through the C.C.S., taken to the Channel and across it to Southern England, and put on a hospital train and shot up to us. Many of them were lifted into our beds from the very stretchers on which they were placed on no man's land.

As we made first rounds, it was almost impossible to hear answers to questions, for the noise of singing and laughing. These men, who were so recently out of the jaws of death, forgot their injuries—no matter how serious—in the great joy of being alive and away from it all; those who had lost arms or legs rejoicing in the fact that they wouldn't have to go back.

One man I'll never forget. He looked like death, and I hurried to his bed to feel for a pulse. I found that he had been gassed, his right arm crushed and gas bacillus entered, so it had been amputated at the elbow, and, later, re-amputated just below the shoulder. He also had two small bits of shrapnel in his right eye. He tried to tell me something, and it was necessary to get close to hear his weak, husky voice say, "Gee, I'm lucky—I've been in two and a half years and this is the first time they've got me."

And when it was necessary to operate we simply told them what was to be done, and always we got the same answer—"Yes sir"; never any refusals or questions. And at the operating table I've heard a hundred times, "Go ahead, doctor, the Hun couldn't kill me, so you can't."

And they were right, for of all the hundreds we took care of there was not one death of a surgical patient.

*Read before Los Angeles County Medical Society, January, 1919. See L. A. County News, February, 1919, this Journal.

We had operative teams for C.C.S. work in France. The first team with Drs. Rea Smith, Morton, Olds, two nurses and two corps men, arrived in Fleury on the night of the onset of the Argonne drive, and had a most arduous six weeks—mostly at night shift operating. My team was to relieve them, but I had the "flu" and missed my turn; so Drs. Richardson, Charlton and Josephs went over and were at work when the armistice was signed.

We had a dreadful time with the "flu." Our cases showed the influenza bacillus, the pneumococcus and streptococcus—many pneumonias with the streptococci predominating, and these were fatal in a very few hours. For a time we closed to everything but "flu" and had to evacuate our patients' mess hall for a ward, and fed the up patients in corridors, cafeteria fashion.

The hospital was situated on a knoll, about a hundred yards from the Firth. In front of us, and for twelve miles up the river lay the Grand Fleet (which included our own as its 6th squadron). Twelve miles of battleships, cruisers, destroyers, chasers, mine sweepers, etc., the most wonderful naval display in the world's history. They were the reason for our location, and from them we received patients with all types of injuries and most all of our medical patients.

We had many patients and friends among their officers, and from their talks and our visits to the ships shared, in a small way, their tension waiting for the German fleet to come out. For weeks near the close of the war the officers were only allowed two hours' leave; then no leave at all, for the German fleet was expected to come out. (The German crews lived ashore, and every morning out fleet knew the minute they went aboard and just the minute that each German ship got up steam; so efficient was the Navy intelligence department.)

Dr. Smith and I had an interesting time at lunch aboard the "Queen Elizabeth," the British flagship, with Captain Hill, the Surgeon General of the fleet, on the day after the conference with the German Admiral. On Admiral Beatty's order, a cruiser came over for instructions as to place and time for delivery of the German fleet. All the officers at the lunch were full of incidents of the day before. When this cruiser arrived there were about forty men from her to go aboard the "Q.E.," and on inquiry it was found that not the Navy officials only were there in numbers, but representatives of every Socialist organization as well. So Admiral Beatty sent word that one admiral, one captain, one commander and one lieutenant could come aboard.

During the conference the German Admiral was told to bring the battleships and cruisers to the entrance of the Firth of Forth, and told when to leave Kiel and when to arrive. The German thought a little and said, "That requires twelve knots speed, and my ships can't do twelve knots."

Then with a sort of sneer he added, "and you thought we were coming out." The ships proved him to be true. The Socialists had made it almost impossible to keep the Navy going at all, claiming that it was a great extravagance; so the fine ships of a few years ago had been entirely neglected—even crippled—by having parts of engines removed to use the material for submarine building, so Hun-sure were they of success with subs; and it was the American destroyer and depth bomb which stopped them.

It was a wonderful sight when the German fleet came in. The Germans came over in single file. The Grand Fleet went out to meet them in two columns, in battle formation covering sixty miles. As the Germans approached the fleet turned toward them and escorted them into the Firth (just in front of our hospital).

The Germans had been ordered to come over without ammunition aboard, and with all breach locks off their guns, but for some reason they were not trusted, so our fleet had all its guns leveled at the German ships. The Grand Fleet works in pairs. For example: Our own "New York" and "Texas" were assigned the "Kaiserin," and the minute she appeared on the horizon every gun on both these battleships were on her, with orders to fire if the "Kaiserin" moved a turret (as if to fire).

Imagine the confusion of emotion then, when under these tense conditions the Germans came in. Their flags were lowered and the allied flags raised on their ships without a shot fired. Later, as we rode about them, many of the crews were dancing on the decks and tossing their caps into the air, while on the "Kaiserin" the band was playing. No other nation in the world could act so, or be such cowards as not to fire a single shot. But their fine ships, unpainted and neglected for years, looked like old automobiles of some used-car dealer.

Now most of our doctors are at home, or in this country, and the rest of the unit are on the way. I am sure that they all feel as I do—that our work has been the most satisfying work of our lives, and are proud to have been a part of such a splendid organization, and rejoiced beyond measure to be at home again.

Over there everybody is homesick all the time; one doesn't get over it. The "Statue of Liberty" is as frequently referred to as the "Star Spangled Banner." As Dr. Morton and I approached New York harbor on the "George Washington," the thrill of it all was the greatest I've known, with every boat in the harbor whistling welcome to the 5000 soldiers, 1000 wounded and 300 officers aboards, and flags waving and paper floating like confetti out of every window of the sky-scrapers. As we passed the statue I quite agreed with the colored soldier returning, who said, "Liberty, old girl, take a good look at me, for if you should ever want to see me again, you'll have to turn around."

REVIEW OF FIVE HUNDRED OPERATIONS FOR BATTLE CASUALTIES.

By Chas D. Lockwood, M.D., Major, M.C.,
U.S.A., Los Angeles

The chief value of our experience in war surgery during the past four years will not be realized in improved technic nor in the knowledge gained in the treatment of wounded men, for the technic of war surgery is not applicable to civilian surgery and it is not probable that another war of sufficient magnitude will occur in our time to put into practice our knowledge in the treatment of wounded men. Nevertheless, our experience in war surgery has taught us many valuable lessons and has thrown illuminating sidelights upon many surgical problems which civilian practice has thus far failed to solve. It is with a view of pointing out some of these discoveries and emphasizing their importance in civil practice that I have undertaken this review of the work done by my surgical team, and that of others whose special work was along different lines.

From July first, 1918 to the signing of the armistice, Surgical Team No. 24, which was under my supervision, performed 468 operations on men wounded in battle. All of these operations were performed in evacuation or field hospitals near the front. The great majority of wounded men were received within twelve hours after receiving their wounds; many of them were received within eight hours and a few of them were not operated on until twenty-four hours or more after injury. Of the total number, 180 were of the soft parts only and approximately 300 involved bony structures, the various cavities of the body and their contained viscera.

Among the more interesting groups of cases were the following:

1. **Wounds of the Chest.** Of these there were 46, 33 of which were penetrating wounds. Of these only one died. This was a desperate case with a large fragment of shell lying on the pericardium. This was removed through a wound necessitating the resection of one rib and wide separation of the adjacent ribs by means of the Tuffier retractor. The patient died of sepsis due to gas gangrene and the streptococcus hemolyticus. The points of special interest in chest surgery brought out by our experience in the war are: (a) That non-penetrating wounds of the chest often cause serious intro-thoracic injury, e.g. hemothorax, infarction of lung, etc. (b) The lung has great resistance to infection within its substance. Lung infection was comparatively rare. (c) In severe chest injuries, lung collapse is almost invariable. (d) Pneumo-thorax, associated with a sucking wound of the chest, is a most dangerous condition and the relief afforded by closure of the wound is instantaneous and startling. (e) Gas oxygen and local anesthesia is the best method of lessening shock in chest operations.

2. **Blood Vessel Injuries.** Of these there were thirty in my series—only injuries to main vessels are referred to. These comprised some of the most difficult cases encountered in war surgery. Three of my cases died; two of these were injuries to the axillary and one to the popliteal. Our experience led us to the following conclusions regarding blood-vessel injuries. (a) In the vast majority of cases it was inadvisable to attempt any blood-vessel suturing. (b) When there was extensive bone injury, in addition to blood vessel injury, even though the collateral circulation seemed adequate, it was best to amputate. (c) The safest method of operating these cases was to expose the vessel well above the site of injury and apply a temporary ligature until the exact nature and extent of injury were determined.

3. **Joints.** Of these there were thirty in my series, in which the joint cavity was opened. War surgery has taught us some very interesting facts

regarding joints which should be of great value in civil surgery. (a) The synovial membrane of joints and particularly those of the knee, have good powers of resistance to infection, and contrary to the common belief, joints may be opened and closed with confidence if ordinary asepsis is employed. Moreover, joints badly damaged and infected will promptly heal if cleansed with ether and closed tightly. Most of the old, much-dreaded infections of joints were due to the presence of drainage tubes in the synovial sac, together with the irritating effects of antiseptic irrigations. (b) Infected joints should be treated by long lateral incisions, and free movement of the joint. All of our joint cases were closed tightly after removal of foreign bodies, fragments of bone and after thorough cleansing with ether. None showed signs of infection before evacuation and none died.

4. **Fractures.** There were 162 fractures in my series of cases, mostly of the long bones. All of these were compound comminuted fractures, associated with extensive wounds of the soft parts. Most of the deaths occurred in this class of cases from gas-gangrene and shock. The treatment of fractures has been more nearly standardized than any other type of war injury. The principle of extension was applied to all fracture of long bones by means of various modifications of the Thomas splint. These splints were applied at the regimental aid stations. They are so simple and convenient that only a few minutes is required for their application. At the base hospitals, traction was applied by means of ice-tong clamps. These simplified appliances are applicable to the fractures of civil life.

5. **Amputations.** Twenty-nine were done by my team. It was the consensus of opinion that too great conservatism was practiced in the matter of amputations. Many lives were lost through gas-gangrene developing in these badly shattered limbs. Early amputation might have saved many of them. Our experience in war surgery taught us the following principles regarding amputations: (a) When a tourniquet is applied to a crushed limb, apply it as distally as possible and amputate above the tourniquet. This is done to avoid the entrance of toxins into the circulation after long constriction. These toxins liberated into the system favor shock. (b) Guillotine operations, or reflected flaps with wide open stumps, give the best results. (c) The only amputation of value designed to save a part of the foot was the Chopart amputation. The most serviceable stumps in amputations of the leg were secured by amputation or at the junction of the middle and upper third or at the junction of the middle and upper third. It is better to amputate above the knee than to leave less than two inches below. Disarticulations do not give good stumps. The same principles apply to the arms.

6. **Head Injuries.** In no type of war wounds has greater reduction of mortality been effected through improved technique than in brain injuries. The mortality in the early years of the war in complicated brain injuries was as high as sixty per cent. In the last two or three months of the war this was reduced to about twenty per cent. Moreover, a surprisingly small number of cases developed abscess and paralyses. The great improvement was brought about through standardization of technique. This technique made possible the application of the principles of "debridement" applied to shell wounds of other parts of the body. The essential points in the technique of brain operations were: (a) Tripod or crucial incision with removal of narrow margin of scalp together with periosteum. (b) Trephine at three points equidistant from skull injury with Hudson trephine and connect these with DeVilbiss forceps. (c) All manipulations are done with instruments. (d) Irrigate surface of denuded skull with hot

sterile water. (c) If dura is injured, remove all foreign bodies, fragments of bone and lacerated brain tissue by means of irrigation with hot saline solution and suction by means of a soft rubber catheter. **Do not use finger.** (f) Before closure irrigate brain cavity and all wound surfaces with dichloramine T. (g) Close dura if possible, and scalp with through and through stitches.

7. **Bacteriologic Study of Wounds.** In immobile hospitals near enough to the line to receive wounded men within twelve hours, and equipped to retain them after operation, bacteriologic study of the wounds in conjunction with the use of Carrell-Dakin solution furnished an accurate guide as to the time of closing debrided wounds. A wound free from streptococci and with only one colony of other organisms in every five fields, was considered safe for closure.

8. **Shock.** The cases of shock from wounds and hemorrhage were very numerous and constituted a large proportion of the seriously wounded treated in front line hospitals. The shock wards were usually full during the great drives and it was one of the most distressing and unsatisfactory fields of work. It was my good fortune to be associated with Lieutenant-Colonel W. B. Cannon, Professor of Physiology at Harvard, in the management of the shock ward during the great German offensive of July 14th and 15th. Prof. Cannon was in charge of all shock work in the A. E. F. and he made many valuable observations on shock both at the front and in the Central Laboratory at Dijon. An unusual opportunity was offered in this war for first hand observations in a very large number of cases of shock. The outstanding features revealed by these observations were: (a) The important relation of blood pressure to prognosis in shock. The critical level was found to be 80 m.m. of mercury. If the systolic pressure remains for more than an hour below this level, there is an insufficient supply of oxygen to the tissues and a condition of acidosis supervenes. (b) It was found that there was a marked difference between the number of corpuscles found in the samples of blood from the veins and those from the capillaries. This difference often amounted to 2,500,000 per cubic millimeter indicating that the lost blood in shock is stagnated in capillaries. (c) Exposure to cold is an important factor in producing shock. Men in good condition when they left the front would often arrive at the evacuation or field hospital in shock. In the treatment of shock, the essential measures employed were heat, hot drinks, rest, morphine and transfusion. Blood, citrated, was found to be the most reliable and lasting method of raising blood pressure. Gum salt solution suggested by Bayliss was found to be more lasting in its effects than salt solution, due to its greater viscosity. When given in the first three or four hours of shock, its action was remarkable, but its later use was found disastrous and it was the consensus of opinion that it hastened death if given after twelve hours.

In my series of cases there were twenty-six deaths. Of these, ten were due to gas gangrene, six were due to peritonitis complicating abdominal injuries, two the result of compound fractures of both femurs, requiring double amputations, two resulted from injury to the axillary artery. One each was due to perforation of femoral artery from septic infection, penetrating wound of chest, with gas gangrene, perforation of rectum and bladder, gunshot wound of rectum, perineum and back and one from wound of neck and jaw, with sepsis and hemorrhage.

SPINAL ANESTHESIA IN UPPER ABDOMINAL SURGERY.

By L. L. STANLEY, M. D., Resident Physician California State Prison, San Quentin, California.

During the past four years spinal anesthesia has been used almost exclusively in all operations below the nipple line, on inmates of the California State prison at San Quentin. During this time about 600 operations have been performed, of which 68 were for conditions which necessitated incisions somewhere below the nipples and above the umbilicus.

These higher operations were not attempted until after it had been satisfactorily demonstrated that spinal anesthesia induced by tropacocaine was entirely efficient in hernias, appendectomies, and other surgical procedures of the lower abdomen and lower extremities. The operations which have been performed with this method of anesthesia are:

Appendectomies, acute and chronic.....	69
Fistula in ano	58
Hemorrhoids	99
Hernia	147
Varicose veins	40
Various operations on legs and thighs.....	36
Urethral strictures	28
Operations on scrotum	59
Gastroenterostomy	47
Splenectomy	2
Exploratory laparotomy, upper.....	7
Excision gastric ulcer	1
Cholecystotomy	1
Cholecystenterostomy	1
Finney's pyloroplasty	2
Hernia, epigastric, recurrent	5
Volvulus	1

Total 603

By reasoning that the tropacocaine solution having a specific gravity of 1027 in cerebro spinal fluid with a gravity of 1007, would be influenced by the difference in weight, it was believed that by placing the patient in a slightly inclined Trendelenberg position, the fluid would go toward the head and produce anesthesia in the upper segments. This was demonstrated on a number of patients on whom operations below the level of the umbilicus were performed. The sensations were tested and found to be abolished in the epigastrium, to the level of the nipples, and sometimes even in the arms and hands subsequent to the production of anesthesia in the lower segments, when the body was placed at an angle of 10-12 degrees to the horizontal. The fluid had, in descending toward the head, bathed the dorsal nerve roots and produced in them the loss of sensation.

The gravitation of the fluid was also demonstrated in a still warm cadaver, thirty minutes after legal execution by hanging. Twenty-five minims of cerebrospinal fluid were withdrawn from the spinal canal. Into this was dissolved one and one-half grains of tropacocaine, together with a few drops of methylene blue. After this was reinjected into the spinal canal, the body was placed with the pelvis slightly elevated for five or six minutes. On rhachiotomy it was shown that the spinal cord tissues were stained as high up as the fourth dorsal vertebra from which emerges the fourth nerve supplying the region about the nipples.

The first upper abdominal operations performed here in 1914 were not satisfactory. It was found that the blood pressure in a few cases fell quite low, that the patient was frightened, that the anesthesia did not last long enough, and that there was some discomfort when the stomach was handled. Later on these difficulties were remedied.

The blood pressure was taken every five minutes and carefully recorded. If it were found greatly reduced, four or five drops of adrenalin in normal salt were given subcutaneously, with very quick response. Only in rare cases, however, did the fall in blood pressure cause alarm.

It had been the custom to operate on these cases without previously giving an opiate, and whereas many were able to control their temerity, it was considered best to administer one-fourth gr. morphine sulphate and 1/160 atropine, half an hour before commencing to operate. In this way it was found that the patient came to the operating room with his fears allayed, and in many cases, slept during the whole operation.

The sensibilities were so dulled by the opiate that the conversation of the attendants or the click of the instruments did not produce fear or excitement. After the anesthetic was administered, the patient was placed on his back, and a moist towel placed over his eyes to exclude light.

With an injection of 1½ gr. of tropacocaine, it was found that the anesthesia lasted less length of time than with three grains. With the former dosage the time was about 1' 45". The larger dose did not produce any ill effects and was well stood by the patient. In the earlier cases when 1½ grs. was used, the anesthetic wore off before the operation could be completed, and it became necessary in some of these cases to finish with ether. This procedure, even so, is not at all bad, for the small amount of ether necessary to complete the operation tends to bring the blood pressure back to normal. Administering the ether is not difficult, for with the spinal anesthetic, the patient cannot move, and the surgeon may continue with his work unmolested while the inhalant is being given. It is not often necessary to finish with the ether, for most of the upper abdominal operations can be completed before the effect of the tropacocaine subsides.

After injecting the anesthetic solution into the spinal canal, four or five minutes elapses before the epigastrium is desensitized. In order to spare these few minutes the site of the operation is quickly prepared with sterile towels, and a few c.c. of one-half per cent. novocaine solution are injected under the skin in the line of incision. By this method, the abdomen can be opened, and by the time the viscera are reached, the whole region is well anesthetized. This procedure is not necessary except as a saving of a little time.

The following is one of the records, showing chronologically, the procedure during the anesthesia. Similar charts are kept on all operations:

Name, P —: number, 29594; sex, male; age, 24; weight, 141; occupation, waiter; diagnosis, gastric ulcer, gastroenterostomy and appendectomy.

3/23/17.
 12:05 P. M. Blood pressure 124 syst. 70 diast.
 12:06 " Pulse rate 78.
 12:50 " 1/8 M. S. and 1/320 atropine.
 1:20 " 1/8 M. S. and 1/320 atropine.
 1:45 " Anesthetic administered, tropacocaine grs. 3 between last dorsal and first lumbar.
 1:45 " Head lowered.
 1:49 " Operation begun. Could not move legs.
 1:50 " Head raised.
 1:51 " Pulse rate, 120.
 1:55 " " " 96.
 2:09 " " " 90; bld. prs. 70 syst 50 diast
 2:19 " " " 90; " 70 " 50 "
 2:29 " " " 90; " 70 " 50 "
 2:39 " " " 90; " 72 " 50 "
 2:49 " " " 90; " 72 " 50 "
 2:59 " " " 90; " 72 " 50 "
 3:03 " " " 90; " 72 " 50 "
 3:45 " Felt pain and could move legs.
 7:00 " Blood pressure 100 syst. 70 diast.
 3/25/17.
 7:00 P. M. Blood pressure 124 syst. 70 diast.

Remarks:—Pupils slightly dilated; complexion slightly paler than normal; puncture made patient recumbent left side; anesthesia complete to line above nipple line; ½ dram spinal fluid withdrawn; left table O. K.; no pain; felt sick at stomach when stomach was manipulated; spinal pressure 21. c.m.

In this case the anesthesia was all that could be desired, except that there was a little nausea when the stomach was handled. The pulse rate changed very little. The blood pressure dropped, but caused no inconvenience. The anesthetic lasted about two hours. With the previous narcotic, the patient's fears were allayed, and he responded very well, making a good recovery.

In fifty-two of these upper abdominal operations, the blood pressure fell, the greatest drop being 76 mm. and the least 2 mm., with an average fall of 28 mm. These changes were based on the record of the pressure before the operation began, and on that at the end before the patient left the operating room.

In three cases there was no change in pressure, and in six the blood pressure was higher at the end of the operation than before.

The use of spinal anesthesia in upper abdominal surgery is a distinct advantage over the inhalants. Anesthesia is more quickly induced. Within five minutes after the patient comes to the operating table the operation may be begun. No anesthetist is needed, the surgeon himself giving the spinal injection. A nurse or attendant should be on hand, however, to note pulse and respiration.

The abdominal walls are thoroughly relaxed, and sewing up is a very simple matter. There is very little shock because the spinal cord is temporarily blocked by the anesthetic, and no harmful impulses reach the brain. There is seldom any vomiting, except what might be expected after a gastro-enterostomy. No foreign substance is secreted in the stomach to produce emesis. No pneumonias follow this anesthetic, for the lungs are in no way affected. There have been no bad results following the spinal anesthesia as used here.

Minutes of the House of Delegates

FORTY-EIGHTH ANNUAL SESSION OF THE MEDICAL SOCIETY OF THE STATE OF CALIFORNIA.

FIRST SESSION

Held at Hotel Belvedere, Tuesday Evening,
April 15, 1919, 8:30 O'Clock.

ROLL CALL.

The roll being called, seventy-seven (77) Delegates were found to be present. The President, C. Van Zwalenburg, in the chair, declared that a quorum of Delegates was present and that the House was ready for business.

The President then made the following report: To the Members of the Medical Society of the State of California:

In calling to order this House of Delegates, I want to take occasion to again thank you most heartily for the honor you have conferred upon me.

I am particularly pleased and proud of the activities of the Society during the past year. No friction has appeared anywhere. Things have moved very smoothly. The work in the office has been very efficiently done and there has been a tremendous amount of it, the war adding a great deal to the regular routine duties. I want to take this opportunity to impress upon the House of Delegates the importance of this office to every member of the profession in the State. The files and records contain all sorts of information and the office force is always courteous and anxious to have you make use of it.

I am gratified to note the improvement in the finances of the Journal, and I am sure it is becoming more and more efficient in its service. The advertising receipts are constantly growing, and very soon we hope the Journal will be self-supporting, possibly revenue producing.

One of the most important activities of the profession has been carried on by the League for the Conservation of Public Health. Although independent of our Society, the workings dovetail in so nicely that the one is a decided help to the other. I am sure that in future this league will prove a beneficent instrument for constructive public health work and will be very helpful to the Medical Society.

The Medical Legal work has been most efficiently handled, and I want to express my appreciation of the efforts of Mr. Hartley F. Peart, not alone in the Medical Legal Department, but in the thousand and one points of advice he so graciously furnishes to every branch of the Society. It is gratifying to note a very marked decrease in the number of damage suits brought. I cannot omit speaking most enthusiastically of this branch of our work. I feel that our defense is practically complete, and I am sure with the Indemnity Defense

Fund growing we shall very soon be absolutely protected in every detail.

Of course, the war and its activities in medical lines has interfered with the regular routine of our work. It is a matter of pride to see how generally and generously the profession of California has responded to every call made by our Government. Our men have gone to the front; have made great sacrifices; have come back with honors, and some of them, unfortunately, have given up their lives. All honor to these men who have stepped into the breach to the protection of our homes and our Government.

We are sorry and pleased that our accommodations at this session are so crowded. We want a large attendance. I would like to suggest that the House of Delegates take up the question of meeting at some other time of the year. We are now meeting before the close of the tourist season, when there are always likely to be a large number of eastern visitors. I think either the middle of May or the month of October would be a very much better time to meet, as long as we meet in these tourist hotels.

I bespeak for this meeting your hearty co-operation and your indulgence of our shortcomings, trusting that the final balance of our efforts will be on the credit side of the ledger and that we will have a mutually interesting and satisfactory meeting.

APPOINTMENT OF THE REFERENCE COMMITTEE BY THE PRESIDENT.

The President then appointed the following Reference Committee: J. M. King, Chairman, Los Angeles; George H. Evans, San Francisco; Gayle G. Moseley, San Francisco, and Hartley F. Peart, San Francisco, General Counsel, ex-officio.

REPORT OF THE COUNCIL.

The President then called upon the Chairman, C. G. Kenyon, who read the following report of the Council:

Mr. President and the Honorable House of Delegates:

Your Council herewith presents to you its report for the work done in the year 1918, together with statement of the accounts of the financial status of the Society.

Owing to the epidemic of the influenza, the Council was unable to meet in the southern part of the State, as it had hoped to do this past year. Two of its regular meetings were thus prevented. The Publicity Bureau, however, has been able to carry out the work of the Council most satisfactorily, and shows again the wisdom of establishing this organization. While it is not a court of last resort, it is a very efficient part of the Society and a good working body, where prompt action is necessary. As you recall, it is composed of the heads of the various departments of the Society; the President, the Chairman of the Council, the Chairman of the Auditing Committee, the General Attorney, the Secretary and the Editor. Its function is to deal with the business problems of the Society—the problems concerning public policy and legislation—and to decide questions which arise in medical defense which require prompt action. All of its decisions are subject to the approval of the

Council, and the Council in turn refers back to it the problems whose details require to be worked out more carefully than can be done in general meetings.

The League for the Conservation of Public Health had its origin in the Publicity Bureau, but is independent of the Society. It is sponsored by men intimately connected with the Bureau, and co-operates with it. While it is an association whose function is to deal with medical problems and public health measures and work, it is not, strictly speaking, a portion of the State Society. It fills a long-felt want in the profession, and renders to medicine a service which the State Society did not and could not give.

The funds which accrue for the support of the Publicity Bureau are maintained separately from those of the general society work, and they are expended under the direction of the Council to further the work of the Bureau and the protection of the interests of the Society.

The Council has endeavored in the war crisis which has just passed to meet the exigencies of the situation and to carry us safely through to a peace basis. By its action of calling for a special war tax, the finances of the Society have been maintained unimpaired, and the Council wishes to thank the members who responded so cheerfully to this call for help. By its means we have held our membership up to its standard and protected the interests of the men who went to war.

Our finances are in excellent condition. For the first time in many years, it has not been necessary to borrow money to carry on the work of the central office at the end of the fiscal year. In spite of the high cost of everything, we did not have to raise the assessment of our members.

The publication of the Journal has been continued, even though labor and paper have almost doubled in price, and we can congratulate ourselves upon the friendly relation and the unselfish principles of our printers, The James H. Barry Co. This firm has done the magazine work of the Journal for many years, and has been a loyal friend in these perplexing times.

The Council feels that the principles maintained by our editor, Dr. Alfred C. Reed, have been all of a very high standard, and that the entire publication is a credit to the profession of the State of California. The Council takes this occasion to express its appreciation of the work done in this department.

The legal problems of the past year have been most admirably handled by the General Attorney, Mr. Hartley F. Peart, and the Assistant General Attorney, Mr. Hubert T. Morrow. Their advice and legal defense have been of utmost value to our members. It has become apparent that it is greatly to the interest of the Society that the General Attorney should attend the Council and State Meetings. His advice is essential in every critical phase of our work and development.

The Indemnity Defense Fund stands unimpaired by the passage of time. No adverse judgments have reduced its principal. The one thing necessary to make it completely successful is an increased number of contributors. We urge all members to join the Fund. By doing so they not only obtain financial protection, but the assurance of mutual interest, which is so valuable to them in the time of trouble.

Altogether, the Council feels that the Society has weathered the storm and starts the new year with a fair wind and a bright sky.

The President then called upon the editor of the CALIFORNIA STATE JOURNAL OF MEDICINE, who made the following report:

Gentlemen—The Journal has successfully weathered the unusual handicaps imposed by the war,

and has maintained a satisfactory standard of scientific articles, news and specialties. The Department of Pharmacy and Chemistry, edited by Dr. Felix Lengfeld, has been of special interest and value.

New lines are projected and some have been undertaken in the following particulars:

A department of Industrial Medicine, in which it is hoped to educate the average doctor in the principles and practice of compensation insurance, to develop the strategic relationship of the medical profession to industry, and to keep the doctor informed of progress in civil industrial rehabilitation.

An Immunity Department, in which correspondents may express personal views in unsigned letters. The Journal has not succeeded very well in securing co-operation from the County Societies in the matter of county news. This ought to be a leading feature each month, and one of the most interesting departments. Such a result can only be achieved if all County Societies will take the matter up aggressively.

A special program has been outlined for hospital write-ups, especially the smaller and private hospitals of the State. Such write-ups would enable these hospitals to get a large number of reprints which should form a valuable advertising medium. Whatever develops the small hospital along sound lines also develops the medical profession, just as in the case of the larger metropolitan hospitals. It is felt that the hospital must serve a definite function in the provision of the best possible scientific service to the patient, and as corollaries to this, as a center for the stimulation and improvement of the doctors, and as a health educational center for the community.

It is especially requested that physicians feel free to express views about and to the Journal, either for publication signed or unsigned, or simply for the information of the Editor. The Journal should be not only a reflection of the views and wishes of the organized medical profession of California, but also should lead and direct medical sentiment in public as well as in scientific matters.

Finally, attention is called to the fact that the Journal will be interesting and useful exactly in proportion to the extent to which the medical profession uses it and takes an interest in it.

REPORT OF THE AUDITING COMMITTEE.

The President then called upon H. A. L. Ryfkogel, Chairman of the Auditing Committee.

Dr. Ryfkogel made a verbal report, stating, among other things, that the finances of the Society were in a much more satisfactory condition than at this time last year, and the expenses of running the Society materially lessened.

REPORT OF THE SECRETARY.

The President then called upon the Secretary, Saxton Pope, who made the following report:

It is customary for the Secretary to make his annual report at this time and briefly to state the condition of the Society in general.

In spite of the trying conditions under which we have lived in the past two years. The Medical Society of the State of California has continued its existence and has prospered. We sent over 1000 men to war from our profession. Almost half of these were members of the State Medical Society. Nevertheless, we were able to hold our membership almost to the level of the past few years. We have at present a total of 2300 members in the Society. In spite of the high cost of

everything, we were not compelled to raise our dues. The special war tax levied by the Council was responded to most heartily and served to meet the crisis in our finances. For the first time in many years the State Medical Society is out of debt at the end of the fiscal year and has in actual cash more than \$2000 to its credit. This showing has been achieved by good management in the office and in economy in the workings of the Society, and yet we have not sacrificed efficiency to this economy.

The position of Secretary to the Society in the past was filled by one man, who was Secretary and Editor. By a ruling of the Council that office is now divided into three portions: the Secretary having charge only of the administrative work of the Society, while the Journal is run by the Editor, Dr. A. C. Reed, whose functions are distinct and apart from those of the administrative office. Moreover, the Council, through its Publicity Bureau, has recently established the position of Managing Editor to the Journal, which is filled by the appointment of Celestine J. Sullivan. The functions of this office deal with matters of public health problems, publicity and the advertising business of the Journal. These three men are paid a nominal salary, which in the aggregate amounts to less than that paid our late Secretary, Dr. Jones. On the other hand, we have increased the salaries of our clerks in the office somewhat proportionate to the general cost of living, and through a process of simplification and systematizing we have reduced the number of workers from five to three. With all these changes, our central office is running most efficiently and smoothly. The utmost harmony prevails and we feel that we are giving the service to the Society which is adequate and required by our members.

In the events of the past year nothing has arisen of more importance than the birth of the League for the Conservation of Public Health. This organization is a definite offspring from the Publicity Bureau, and, although membership is voluntary and it is largely composed of men who belong to the State Medical Society, it is, nevertheless, a distinct and separate organization and its purposes are different from those of the State Medical Society. It fills a place which the State Medical Society is unable to fill. It deals with the larger problems of industrial medicine, public policy and medical propaganda, and as Secretary of our Society I am authorized by the Council to urge your utmost support of this organization.

I also wish to call your attention to another voluntary association under the jurisdiction of the State Medical Society, the Indemnity Defense Fund. This has proved itself a most valuable adjunct to our legal protection. This fund now consists of 468 members, and no assessments have been levied for the past three years. The original capital with which we started is absolutely intact, and no adverse judgments have been rendered against members of this fund. The only thing necessary to make it a complete success is a larger number of subscribers. Send in your application at once and a check for \$30. This will probably carry you for a number of years without further assessment, and it indemnifies you should you meet with an adverse judgment in a suit for alleged malpractice.

Of the work which our members have done in the past great war there is little to be said, because there is so much that might be said. The medical profession again has proved its altruism and its devotion to humanity. We have sacrificed everything, regardless of age, position and family ties, and we have not served in a bombproof branch of the service. The medical officers and Red Cross nurses have been targets of the enemy's hatred. In spite of these things, we have done our duty. Many have served and died in the cause. To them all reverence and honor.

The question often arises and is voiced by our members, "What is the use of the State Medical Society? What good do we do?" This question can be answered unequivocally. The State Medical Society does stimulate the scientific advancement of the profession; it does bind the mutual interests of its members; it does protect against the unjust attacks of the maligner and the black-mailer. The State Medical Society does uphold the standards of medical training; it does promote and protect medical laws and regulating acts. It stands for what is best in the profession and is its standard bearer in the eyes of the public. It now proposes to render better organized and more efficient service to the public, through its subsidiary body, the League for the Conservation of Public Health. In this, as in all things, medicine again places itself at the service of humanity. It only asks that it may be permitted to prevent sickness and misery, to cure disease where that is possible, to relieve suffering where nothing else will do, to help solve the problems of industry and civilization, and to yield its quota for human betterment.

BARBAT PRIZE.

The President then called upon Fitch C. E. Mattison, Chairman of the Committee on the award of the prize offered by J. Henry Barbat, President of the Society during the year 1917.

Dr. Mattison stated that the Committee had decided that the paper of Dr. Karl F. Meyer, entitled "Experimental Typhoid Carriers," was most worthy of consideration, and the Committee was unanimous in its opinion that the prize be awarded to Dr. Meyer.

UNFINISHED BUSINESS.

Adoption of Amendments to the Constitution

The President then made the announcement that the adoption of amendments to the Constitution of the Medical Society of the State of California proposed at the Forty-seventh Annual Meeting of that body, held at Del Monte, April, 1918, were now in order.

The Secretary read each of the proposed amendments, as follows:

ARTICLE III.

MEMBERS.

Section 1. Members—The Members of the Society shall be the members of the component county medical societies, excluding associate or honorary members thereof.

Sec. 2. Guests—Any distinguished scientist, associate or honorary member of any component county society, or any physician not a resident of this State, may become a guest during any Annual Meeting on invitation of the President or the officers of this Society, and shall be accorded the privilege of participating in all of the scientific work for that meeting. The President shall announce to the general meeting the names of such persons as have been invited to attend the meeting, and their names shall then be enrolled as guests of that annual meeting.

ARTICLE IV.

HOUSE OF DELEGATES.

The House of Delegates shall be the legislative body of the Society, and shall consist of (1) Delegates elected by the component county societies, (2) the Councilors, and (3) ex-officio, the President and Secretary of the Society.

ARTICLE V.

MEETINGS.

Section 1. The regular meetings of this Society shall be held annually.

Sec. 2. Special meetings of the House of Delegates may be convened as the By-Laws provide.

Sec. 3. Twenty-five members shall constitute a quorum in the House of Delegates.

Sec. 4. The election of officers shall be the first order of business of the House of Delegates at the second evening session of each annual meeting.

Sec. 5. All officers shall be elected by ballot, and shall serve until their successors are elected and qualified.

ARTICLE VI.

OFFICERS.

Section 1. The officers of this Society shall be a President, a President-elect, a First Vice-President, a Second Vice-President, a Secretary, and fifteen Councilors, of whom one shall be elected from each of the nine Councilor districts and six at large, two of whom shall be elected from the County of Los Angeles, one from the City and County of San Francisco, one from the County of Alameda, and two from the remainder of the State. Not more than three Councilors shall be elected from any one Councilor district. These officers shall be elected by the House of Delegates at the time and in the manner duly provided in this Constitution and By-Laws.

Sec. 2. The officers, except the Councilors, shall be elected annually. The terms of the elected Councilors shall be for three years, those first elected serving one, two and three years, as may be arranged.

Sec. 3. The Society shall elect a President for the next succeeding year, who shall remain President-elect for one year preceding his assumption of the office of President. While President-elect he shall be ex-officio a member of the Council.

Sec. 4. No delegates shall be eligible to any office named in the preceding section, except that of Councilor, and no person shall be elected to any such office who has not been a member of the Society for the past two years.

ARTICLE VII.

COUNCIL.

The Council shall consist of the Councilors and the President, the President-elect and the Secretary, ex-officio. Besides its duties mentioned in the By-Laws, it shall constitute the Finance Committee of the House of Delegates. Five Councilors shall constitute a quorum.

ARTICLE IX.

FUNDS AND EXPENSES.

Funds shall be raised by an equal per capita assessment on each component society. The amount of the assessment shall be fixed by the House of Delegates by a four-fifths vote thereof. The fiscal year of the Society shall be from January 1st to December 31st. The number of members in good standing in each component society on the first day of March of each year shall be taken as the basis for the assessment for that fiscal year, as fixed by the House of Delegates. Funds may also be raised by voluntary contributions from the Society's publications, and in any other manner approved by the House of Delegates. Funds may be appropriated by the House of Delegates to defray the expenses of the Society, for publications and for such other purposes as will promote the welfare of the profession.

ARTICLE XI.

THE SEAL.

The Society shall have a common seal, with such inscription thereon as the Council shall prescribe.

ARTICLE XII.

AMENDMENTS.

The House of Delegates may amend any article of this Constitution by a two-thirds vote of the Delegates present at any annual meeting, provided that such amendment shall have been presented in open meeting at the previous annual meeting, and that it shall have been published twice during the year in the Journal of this Society, or sent officially to each component society for at least two months before the meeting at which final action is to be taken.

On the motion of H. Bert Ellis, duly seconded by C. G. Kenyon, each of the said amendments was adopted, and the Constitution as thus amended was adopted as a whole by the House of Delegates.

NEW BUSINESS.

The President then announced that any resolutions presented to the House of Delegates for its consideration would be referred to the Reference Committee, and that this Committee after careful deliberation would report to the House of Delegates at the Second Session, Wednesday evening, April 16. Resolutions were then presented as follows:

RESOLUTION NO. I.

Presented by the Council of the Medical Society:

Amend the By-Laws, Article II, Section 1 thereof, by striking out the word "third" in the second line thereof and inserting in lieu the word "second"; and by striking out the word "April"

thereof and inserting in lieu the word "May", so that said Section 1 will read as follows:

"The annual meeting of this Society shall convene the second Tuesday in May of each year."

RESOLUTION NO. II.

Presented by the Council of the Medical Society:

Resolution relative to eliminating that portion of the Medical Defense Rules, III, which reads as follows:

"Members whose assessments are not received on or before February 15th of each year will be notified by letter from the Secretary of the State Society of such fact."

RESOLUTION NO. III.

Presented by the Council:

Amend By-Laws by striking out that portion of Article IX, Section 5, which reads as follows:

"provided that if such new member joins a component County Society after July 1st, he shall pay only one-half the regular annual assessment for such fiscal year."

RESOLUTION NO. IV.

Two resolutions, relative to appropriation for the National Public Health Service, one introduced by F. F. Gundrum of Sacramento, the second by C. Van Zwalenburg:

Whereas, We have been informed that the Congress of the United States has or is about to materially reduce the appropriations to the United States Public Health Service; and

Whereas, This action must result in seriously handicapping this Service in the great work it is now doing in preventive medicine; and

Whereas, The United States Public Health Service is now co-operating with the California State Board of Health in the study and prevention of plague, malaria and venereal diseases, and with other Public Health activities throughout the nation; now therefore be it

Resolved, That this House of Delegates of the Medical Society of the State of California hereby protests against any such curtailment of the activities of the United States Public Health Service; and be it

Further Resolved, That the Secretary of the Medical Society of the State of California be and hereby is directed to communicate with each California Senator and Congressman, requesting his support for any and all appropriations to the United States Public Health Service.

F. F. GUNDRUM.

In line with my recommendation this morning, I would like your Reference Committee to consider the advisability of memorializing our Senators and Representatives in the interest of a large appropriation for the National Public Health Service.

C. VAN ZWALENBURG.

RESOLUTION NO. V.

Presented by the Committee on Arrangements, R. E. Bering, C. S. Stephens, George S. Wells:

"Owing to courtesies extended to us by Messrs.

Bennett and Boise, managers of Hotel Belvedere, we feel that a vote of thanks is due them personally for their untiring energy in looking after the arrangements for the comfort and success of the meeting."

RESOLUTION NO. VI.

Presented by the Committee on X-Ray Legislation; Albert Soiland, Los Angeles, for the Committee:

Resolved, That inasmuch as the practice of Roentgenology is an important and responsible specialty of medicine and surgery, which if practiced by incompetent persons may be a serious danger to the health and lives of the public, and whereas, the laws pertaining to the practice of this specialty are at this time exceedingly lax,

Now, therefore be it resolved by the Medical Society of the State of California, that it instructs its Committee to confer with similar Committees of recognized medical, dental and affiliated societies, in the matter of preparing a proposed law, which would better safeguard the public health, insofar as the practice of Roentgenology is concerned,

And be it further resolved, that the Committee be instructed to present its report for action at the next session of this Society.

RESOLUTION NO. VII.

Presented by C. Van Zwalenburg:

Resolution that the Publicity Bureau, in co-operation with the Program Committee, arrange for a talk or talk by an expert or experts on the subject of Salesmanship and Business Efficiency, at the next meeting of the Society.

RESOLUTION NO. VIII.

Presented by Cullen F. Welty:

Be it resolved, That physicians must be qualified before attempting major operations as follows:

That all physicians practicing major surgery should be qualified before they are legally allowed to do such work in one of several ways:

1st—As an assistant for a period of three years to a surgeon of recognized ability;

2nd—As a surgical assistant for two years to a teacher (University position) and practitioner of surgery;

3rd—As a surgical interne for a period of two years;

4th—That at present all physicians who have practiced major surgery for a period of five years, or more, be included; or

5th—All physicians that have practiced surgery exclusively for a period of three years be included;

6th—That the Medical Society of the County in which such surgeon resides be required to issue a certificate upon the proper presentation in tabulated form, that this physician is qualified to do major surgery;

7th—That said County Medical Society be compelled to keep a list of such members that will be open to the public;

7½—The last three retiring Presidents of the

County Medical Society to constitute a committee to pass on the credentials of the applicants; this personnel of the committee to change from year to year with the election of a new President;

8th—That hospitals or individuals may at any time ask to see such certificates, which can always be found in the surgeon's office;

9th—In the event of a physician doing a major operation that he is not qualified to do, he should not be allowed to collect his fee by law, and in case of a suit for malpractice, cannot be defended by our State Insurance Company;

10th—In the event of an emergency operation being performed by a physician not qualified to do same, he is entitled to the customary fee and is not to be held responsible, or that in communities too far from qualified surgeons the same rule holds good.

Dr. L. M. Ryan addressed the delegates, suggesting the propriety of a resolution looking to the affiliation of the Society with Dentists in research work.

There being no further business, the minutes were read and duly adopted, and the meeting was adjourned to meet Wednesday evening, April 16th, at 8:30 o'clock.

SECOND SESSION

Wednesday Evening, April 16, 1919, at 8'30 O'Clock.

ROLL CALL.

The roll being called, ninety-one members were found to be present, and the President, C. Van Zwalenburg, in the chair, declared that a quorum of the House of Delegates was present and that the House was ready for business.

The President then made the announcement that the place of meeting for 1920 would be Hotel Del Monte, Monterey, California.

ELECTION OF OFFICERS.

Nominations for President were declared in order.

President—H. A. L. Ryfkogel of San Francisco was nominated for President by George H. Evans of San Francisco, said nomination being duly seconded by Dudley A. Smith of Oakland. On motion, duly seconded, the Secretary was instructed to cast the ballot of the House for H. A. L. Ryfkogel for President. The Secretary duly cast the ballot, and H. A. L. Ryfkogel was duly declared elected President for the ensuing year.

Nominations for President-Elect were declared in order.

President-Elect—J. C. Yates of San Diego was nominated for President-Elect by Paul M. Carrington of San Diego, said nomination being duly seconded by P. T. Phillips of Santa Cruz. On motion, duly seconded, the Secretary was instructed to cast the ballot of the House for J. C. Yates for President-Elect. The Secretary duly cast the ballot, and J. C. Yates was duly declared President-Elect of the Society for the year 1920.

Nominations for First Vice-President were declared in order.

First Vice-President—H. G. Brainerd of Los Angeles was nominated for First Vice-President. by H. Bert Ellis of Los Angeles, said nomination being duly seconded by James H. Parkinson of Sacramento. On motion, duly seconded, the Secretary was instructed to cast the ballot of the House for H. G. Brainerd for First Vice-President. The Secretary duly cast the ballot, and H. G. Brainerd was duly declared elected First Vice-President of the Society for the ensuing year.

Nominations for Second Vice-President were declared in order.

Second Vice-President—Dudley A. Smith of Oakland was nominated for Second Vice-President by W. B. Coffey of San Francisco, said nomination being duly seconded by George H. Kress of Los Angeles. On motion, duly seconded, the Secretary was instructed to cast the ballot of the House for Dudley A. Smith for Second Vice-President. The Secretary duly cast the ballot, and Dudley A. Smith was duly declared elected Second Vice-President of the Society for the ensuing year.

Nominations for Secretary were declared in order.

Secretary—Dr. Saxton Pope of San Francisco was nominated for Secretary by George H. Kress of Los Angeles, said nomination being duly seconded by James H. Parkinson, of Sacramento. On motion, duly seconded, the President cast the ballot of the House for Dr. Saxton Pope for Secretary, and Dr. Saxton Pope was duly declared elected Secretary of the Society for the ensuing year.

Nominations for Councilors, terms expiring 1919, were declared in order.

COUNCILORS.

Second District—Wm. H. Kiger of Los Angeles was nominated for Councilor for the Second District by Fitch C. E. Mattison of Pasadena, said nomination being duly seconded by Harlan Shoemaker of Los Angeles. On motion, duly seconded, the Secretary was instructed to cast the ballot of the House for Wm. H. Kiger for Councilor for the Second District. The Secretary duly cast the ballot and William H. Kiger was duly declared Councilor for the Second District for the ensuing year.

Sixth District—C. G. Kenyon of San Francisco was nominated for Councilor for the Sixth District by Gayle G. Mosley of San Francisco, said nomination being duly seconded by F. Stabel of Redding. On motion, duly seconded, the Secretary was instructed to cast the ballot of the House for C. G. Kenyon for Councilor for the Sixth District. The Secretary duly cast the ballot, and C. G. Kenyon was duly declared elected Councilor for the Sixth District (to succeed himself) for the ensuing year.

Eighth District—James H. Parkinson of Sacramento was nominated for Councilor for the Eighth District by George A. Spencer of Sacramento, said nomination being duly seconded by William A. Beatty of Sacramento. On motion, duly seconded, the Secretary was instructed to cast the ballot of the House for James H. Parkinson

for Councilor for the Eighth District. The Secretary duly cast the ballot, and James H. Parkinson was duly declared elected Councilor for the Eighth District (to succeed himself) for the ensuing year.

At Large—O. D. Hamlin of Oakland was nominated for Councilor at Large by P. T. Phillips of Santa Cruz, said nomination being duly seconded by William H. Strietmann of Oakland. On motion, duly seconded, the Secretary was instructed to cast the ballot of the House for O. D. Hamlin for Councilor at Large. The Secretary duly cast the ballot, and O. D. Hamlin was duly declared elected Councilor at Large (to succeed himself) for the ensuing year.

Committee on Scientific Program and Work—F. M. Pottenger of Monrovia was nominated to serve on the Committee on Scientific Program and Work, by George H. Kress of Los Angeles, seconded by W. C. Voorsanger of San Francisco. On motion, duly seconded, the Secretary was instructed to cast the ballot of the House for F. M. Pottenger to serve on the Committee on Scientific Program and Work. The Secretary duly cast the ballot, and F. M. Pottenger was duly declared elected to serve on the Committee on Scientific Program and Work for four years.

The President announced the Committee on Scientific Program and Work for 1919 as follows:

Robert A. Peers, Colfax (1920).

Walter V. Brem, Los Angeles (1921).

Lemuel P. Adams, Oakland (1922).

F. M. Pottenger, Monrovia (1923).

The President then announced that owing to a new apportionment in the House of Delegates in the American Medical Association, California was assigned but three (3) delegates, a decrease of one over the number previously allotted to the Society.

Nominations for one delegate to the American Medical Association were declared in order.

A. B. Spalding of San Francisco was nominated by Victor G. Vecki of San Francisco for Delegate to the American Medical Association (2 years), said nomination being duly seconded by O. D. Hamlin of Oakland. On motion, duly seconded, the Secretary was instructed to cast the ballot of the House for A. B. Spalding for Delegate to the American Medical Association (2 years). The Secretary duly cast the ballot, and A. B. Spaulding was duly declared elected Delegate to the American Medical Association (2 years).

On nomination and ballot, duly had and taken, C. Van Zwahlenburg of Riverside was elected Delegate to the American Medical Association, to take the place of George H. Kress, who, being unable to attend, had filed his resignation with the Council the evening before.

The President announced the Delegates to the American Medical Association, as follows:

C. Van Zwahlenburg, Riverside (2), 1920.

Victor G. Vecki, San Francisco (2), 1920.

A. B. Spalding, San Francisco (2), 1921.

Nominations for Alternates to the American Medical Association were declared in order.

On nomination of T. C. Edwards, Salinas, duly

seconded by H. Bert Ellis, Los Angeles, T. C. Little of San Diego was elected Alternate to the American Medical Association (2 years).

On nomination and ballot, duly had and taken, Jerome B. Thomas of Palo Alto was elected Alternate to the American Medical Association, to take the place of Granville MacGowan.

The President announced the Alternates to the American Medical Association as follows:

William P. Lucas, San Francisco (2), 1920.

Jerome B. Thomas, Palo Alto (2), 1920.

T. C. Little, San Diego (2), 1921.

UNFINISHED BUSINESS.

The President then announced that the Council, through its Publicity Bureau, had heretofore appointed a Committee on Industrial Accident Insurance to investigate the status and working of the Industrial Accident Commission from the standpoint of the patient and the doctor, and to suggest possible remedies by which a more perfect system of compensation procedure could be effected, and that the Committee had submitted the following report:

Your Committee on Industrial Accident Insurance met in pursuance to the call of the Chair at 8:45 A. M., April 16th, 1919, Hotel Belvedere, Santa Barbara, California.

The Chair requested Parkinson to act as Secretary.

Present:

Emmet Rixford, San Francisco, Chairman;
W. W. Beckett, Los Angeles;
O. O. Witherbee, Los Angeles;
James H. Parkinson, Sacramento.

Absent:

Sol Hyman, San Francisco.

The Chairman presented data compiled by Dr. Hyman and himself together, with certain basal propositions in connection with records, fees and service.

1. It seems apparent that no fee schedule was ever presented by this Society. Experience has demonstrated that the absence of an equitable scale of fees and its acceptance by the Industrial Accident Commission has not been productive of the best results. In the absence of such agreement and the financial basis therefor, it is impossible for the Society to offer guaranteed service or ensure against breach of contract by either party. This is evidenced by defective service, fee cutting, fee splitting, and open and secret rebating, all of which, in the last analysis, obviously react upon the only person for whom the machinery was originally created, the injured working man.

2. Much that is unnecessary; reduplication, complication and confusion, is involved in the present paper work, all tending to manifest inefficiency. The Committee feels that this should be greatly simplified, that all records should be standardized, and that the principle of one record and one entry, once, should be carried out.

3. The basic factor upon which everything in the Medical Department of Industrial Accident work is based is the clinical record. The Committee feels that this especially should be simplified and standardized, and that its revision and conservation should be in the hands of medical men. This will tend to eliminate error, insure its early detection, greatly improve medical and surgical work, making diagnosis easier and surgical procedure more definite.

The Committee hesitates, yet feels it its duty

to make the perfectly obvious recommendation that the examination of doubtful, difficult and complicated cases should be by a Board of Examiners instead of examiners acting as individuals, whose findings must subsequently be collated, possibly through non-medical channels. This involves neither added expense nor change of personnel. It only substitutes definite conclusions for possible indecision and inefficiency for inefficiency.

5. The Committee believes that the improvement in medical and surgical service which everyone recognizes as so desirable can be accomplished on the basis of the foregoing propositions.

6. It recommends that the whole question be referred to the Council for immediate action, with the following specific instructions:

(a) That Propositions 1, 2, 3 and 4 be given force and effect.

(b) That in connection with Proposition 1, an equitable fee schedule be devised whereby medical and surgical fees will be considered and placed upon the same basis as higher wages and higher premiums due to increased cost of living and increased cost of everything. That the question of a flat fee or of an itemized bill, but, in any case, a greatly simplified bill, be taken up and that the manifest abuse of service at industrial accident rates to high-salaried officials and wealthy captains of industry be definitely settled for the benefit of all concerned.

(c) That steps be taken to present the findings of the Council to the Industrial Accident Commission in such shape as to insure a favorable reception.

(Signed) EMMET RIXFORD, Chairman.
W. W. BECKETT,
O. O. WITHERBEE,
JAMES H. PARKINSON.

Santa Barbara, April 15, 1919.

Dr. W. B. Coffey made a motion that the report be accepted and referred to the Council for action.

The report was discussed further by Fitch C. E. Mattison, John C. King, John H. Graves and W. B. Coffey, Dr. Graves stating that the Committee's report was an excellent one, and he would gladly second Dr. Coffey's motion if "without recommendation" was added thereto. By vote of the House, the report was unanimously accepted, and referred to the council without recommendation.

The following resolution was then read by Edward N. Ewer:

A RESOLUTION FOR A NEW SECTION.

Whereas, A League for the Conservation of Health has been established, and whereas, Industrial Medicine has become a specialty; be it

Resolved, That a new section be authorized in our Scientific Program at the next session, to be known as Public Health and Industrial Medicine.

President Van Zwalenburg recommended that this resolution be referred to the Council for action; unanimously agreed by the House.

Presentation of the President.

H. A. L. Ryfkogel of San Francisco, the incoming President, was then escorted to the chair by C. G. Kenyon, Chairman of the Council, and H. Bert Ellis. Dr. Ryfkogel made a short but interesting verbal address, in which he outlined his ideas of the fundamental work to be undertaken by his administration. Dr. Ryfkogel felt that a determined effort should be made to in-

crease membership so as to include every ethical practitioner in the several counties; that a state-wide campaign of education on the great benefits and advantages of the Indemnity Defense Fund to each individual member of the association should be inaugurated, and that the movement inaugurated by his predecessor, Dr. Van Zwalenburg, to canvass and investigate thoroughly the workings of the Industrial Accident Commission in its relation to public health and the medical profession should be continued, and a complete survey of this situation, and all possible improvements and conditions be secured.

Presentation of the President-Elect.

John C. Yates of San Diego, President-Elect, was next presented. Dr. Yates also addressed the House. He said his duties had been clearly defined—and he very distinctly understood—having been so informed that he was "to be seen and not heard"—and that he was quite willing to be shown the way.

REPORT OF THE COMMITTEE ON NEW BUSINESS.

The President then called upon Joseph M. King, Chairman of the Reference Committee, for a report of that Committee.

Upon motion, duly seconded, it was unanimously Resolved, That the report be taken up, read and approved, section by section.

RESOLUTION NO. 1.

Presented by the Council of the Medical Society.

Amend By-Laws, Article II, Section 1 thereof by striking out the word "third" in the second line thereof and inserting in lieu the word "second"; and by striking out the word "April" thereof and inserting in lieu the word "May," so that said Section 1 will read as follows:

"The annual meeting of this Society shall convene on the second Tuesday in May of each year."

In regard to Resolution 1 amending the By-Laws to cause the annual meeting to take place on the second Tuesday in May—the Committee was quite undecided.

It was felt that the reason for changing the time of meeting was for the purpose of securing a time when hotels were less filled with tourists, but on the other hand it seemed probable that European travel would re-establish itself after the declaration of peace, and that our hotels would not be so filled in April as they have been during the last three or four years.

In addition to this, it was thought that a meeting date in May might interfere with the attendance of men doing teaching, and that it might bring the meeting in conflict with other medical meetings.

For these reasons, the Committee, although undecided, recommends that the resolution pass.

On motion duly made and seconded, it was unanimously resolved by the House of Delegates

that Article II Section 1 of the By-Laws be amended by striking out the word "third" in the second line thereof and inserting in lieu the word "second"; and by striking out the word "April" thereof and inserting in lieu the word "May," so that said Section 1 will read as follows:

"The annual meeting of this Society shall convene on the second Tuesday in May of each year."

RESOLUTION NO. 2.

Presented by the Council of the Medical Society.

Resolution relative to eliminating that portion of the Medical Defense Rules, III, which reads as follows:

"Members whose assessments are not received on or before February 15th of each year will be notified by letter from the Secretary of the State Society of such fact."

The Committee recommends that Resolution 2 be passed, as eliminating from the Secretary's office useless work liable to cause confusion.

On motion duly made and seconded, said Resolution No. 2 was unanimously adopted by the House of Delegates.

RESOLUTION NO. 3.

Presented by the Council.

Amend By-Laws by striking out that portion of Article IX, Section 5, which reads as follows:

"provided that if such new member joins a component County Society after July 1st, he shall pay only one-half the regular annual assessment for such fiscal year."

The Committee recommends that Resolution 3 do not pass, as it seems manifestly unjust that a member joining late in the year should pay dues for the entire year, as such a proposed By-Law may interfere with the entrance of new members in the latter part of the year, and as the extra clerical work thrown on the Secretary's office must be slight.

On motion duly made and seconded, it was unanimously resolved by the House of Delegates that Resolution No. 3 re Article IX Section 5 of the By-Laws be rejected.

RESOLUTION NO. 4.

Two resolutions, relative to large appropriation for the National Public Health Service, one introduced by F. F. Gundrum of Sacramento, the second by C. Van Zwalenburg:

Presented by F. F. Gundrum.

Whereas, We have been informed that the Congress of the United States has or is about to materially reduce the appropriations to the United States Public Health Service; and

Whereas, This action must result in seriously handicapping this Service in the great work it is now doing in preventive medicine; and

Whereas, The United States Public Health Service is now co-operating with the California State Board of Health in the study and prevention of plague, malaria, and venereal diseases, and

with other Public Health activities throughout the nation, now, therefore, be it

Resolved, That this House of Delegates of the Medical Society of the State of California hereby protests against any such curtailment of the activities of the United States Public Health Service; and be it further

Resolved, That the Secretary of the Medical Society of the State of California be and hereby is directed to communicate with each California Senator and Congressman requesting his support for any and all appropriations to the United States Public Health Service.

Presented by C. Van Zwalenburg.

In line with my recommendation this morning, I would like your Reference Committee to consider the advisability of memorializing our Senators and Representatives in the interest of a large appropriation for the National Public Health Service.

The Committee recommends that Resolution No. 4 do pass.

On motion duly made and seconded, said Resolution No. 4 was unanimously adopted by the House of Delegates.

RESOLUTION NO. 5.

Presented by the Committee on Arrangements.

"Owing to the courtesies extended to us by Messrs. Bennett and Boise, Managers of Hotel Belvedere, we feel that a vote of thanks is due them personally for their untiring energy in looking after the arrangements for the comfort and success of the meeting."

The Committee recommends that Resolution No. 5 do pass.

On motion duly made and seconded, said Resolution No. 5 was unanimously adopted by the House of Delegates.

RESOLUTION NO. 6.

Presented by the Committee on X-Ray legislation.

Resolved, That inasmuch as the practice of Roentgenology is an important and responsible specialty of medicine and surgery, which if practiced by incompetent persons may be a serious danger to the health and lives of the public, and whereas the laws pertaining to the practice of this specialty are at this time exceedingly lax.

Now, therefore, be it resolved by the Medical Society of the State of California, that it instructs its Committee to confer with similar committees of recognized medical, dental, and affiliated societies, in the matter of preparing a proposed law, which would better safeguard the public health, insofar as the practice of Roentgenology is concerned; and be it further

Resolved, That the Committee be instructed to present its report for action at the next session of this Society.

The Committee recommends that Resolution VI, of the Committee on X-Ray legislation be referred to the Council to take such action as it deems best.

On motion duly made and seconded, the report

of the Committee on Resolution No. 6 was unanimously adopted by the House of Delegates.

RESOLUTION NO. 7.

Presented by C. Van Zwalenburg.

Resolution that the Publicity Bureau in co-operation with the Program Committee arrange for a talk or talks by an expert or experts on the subject of Salesmanship and Business Efficiency, at the next meeting of the Society.

The Committee recommends that Resolution No. 7 do pass.

On motion duly made and seconded, Resolution No. 7 was unanimously adopted by the House of Delegates.

RESOLUTION NO. 8.

Presented by Cullen F. Welty:

Be it resolved that physicians must be qualified before attempting major operations as follows:

That all physicians practicing major surgery should be qualified before they are legally allowed to do such work in one of several ways:

First—As an assistant for a period of three years to a surgeon of recognized ability.

Second—As a surgical assistant for two years to a teacher (University position), and practitioner of surgery.

Third—As a surgical interne for a period of two years.

Fourth—That at present all physicians that have practiced major surgery for a period of five years, or more, be included, or

Fifth—All physicians that have practiced surgery exclusively for a period of three years be included.

Sixth—That the Medical Society of the County in which such surgeon reside, be required to issue a certificate upon the proper presentation in tabulated form, that this physician is qualified to do major surgery.

Seventh—That said County Medical Society be compelled to keep a list of such members that will be open to the public.

Seven and One-Half—The last three retiring presidents of the County Medical Society to constitute a committee to pass on the credentials of the applicants; this personnel of the committee to change from year to year with the election of a new president.

Eighth—That hospitals or individuals may at any time ask to see such certificate—which can always be found in the surgeon's office.

Ninth—In the event of a physician doing a major operation that he is not qualified to do, he should not be allowed to collect his fee by law, and in case of a suit for malpractice, cannot be defended by our State Insurance Company.

Tenth—In the event of an emergency operation being performed by a physician not qualified to do same, he is entitled to the customary fee and is not to be held responsible, or that in communities too far from qualified surgeons the same rule holds good.

As this Society has no authority to fix the qualifications of men doing major surgery nor any authority to fix their compensation, and as we might involve ourselves in serious legal difficulty by attempting to do so, the Committee strongly recommends that Resolution No. 8 do not pass.

Dr. Welty then asked that the Resolution be withdrawn.

On motion duly made and seconded, said Resolution No. 8 was unanimously rejected by the House of Delegates.

RESOLUTION NO. 9.

Following the suggestion of Dr. L. M. Ryan, of Banning, relative to the propriety of a resolution looking to the affiliation of the Society with dentists in research work, the Committee recommends the following resolution:

Resolved, That the Council be instructed to investigate the question of associating members of the dental profession with this Society in an effort to secure co-operation along common lines of advancement in scientific work.

The Committee recommends that Resolution No. 9 do pass.

On motion duly made and seconded, said resolution No. 9 reported by the Reference Committee was unanimously adopted.

REPORT OF THE GENERAL ATTORNEY.

General Counsel Hartley F. Peart then presented to the House the annual report of the Legal Department. He was followed by an interesting report on the Southern California work by Assistant General Counsel Hubert T. Morrow.

Mr. Peart, among other things, summarized the work in the Legal Department for 1918 as follows:

Claims (threatened actions not resulting in court proceedings) disposed of in 1918.....21
Cases (where court proceedings were instituted) disposed of in 1918.....13

All of said claims and cases disposed of without compromise or settlement of any kind except in one instance,—where \$450 was paid in compromise (with the consent and approval of the doctor concerned).

Claims pending against members January 1, 1919, (threatened actions not resulting in court proceedings)21

Cases pending against members January 1, 1919, (where court proceedings were instituted).. 34

Both Mr. Morrow and Mr. Peart emphasized the extreme desirability from the individual standpoint of promptly becoming a member of the Indemnity Defense Fund and urged the delegates, who had not joined the fund, to do so immediately, and advise all members of the Society in their community to do so by application sent to the Secretary's office accompanied by check for \$30.

CORRECTION OF TYPOGRAPHICAL ERROR IN THE CONSTITUTION, ARTICLE VI, SECTION 1. REDIS- TRICTING OF STATE.

James H. Parkinson of Sacramento made a motion for a reconsideration of Article VI, Section 1,

Proposed Amendment.

ARTICLE VI.

OFFICERS.

Section 1. The officers of this Society shall be a President, a President-elect, a First Vice-President, a Second Vice-President, a Secretary, and fifteen Councilors, of whom one shall be elected from each of the nine Councilor districts and six at large, two of whom shall be elected from the County of Los Angeles, one from the City and County of San Francisco, one from the County of Alameda, and two from the remainder of the State. Not more than three Councilors shall be elected from any one Councilor district. These officers shall be elected by the House of Delegates at the time and in the manner duly provided in this Constitution and By-Laws."

asking for the unanimous consent of the House in eliminating that portion of the section beginning with the word "one" in the seventh line and ending with the word "State" in the ninth line, and inserting in lieu thereof the words "and four from the remainder of the State." Said motion was duly seconded.

President Van Zwalenburg presented this to the House, asking if there was any objection to the correction.

George H. Kress moved that they take up the matter of rectifying the error, and that the correction be made so that the section reads as follows:

ARTICLE VI.

OFFICERS.

Section 1. The officers of this Society shall be a President, a President-elect, a First Vice-President, a Second Vice-President, a Secretary, and fifteen Councilors, of whom one shall be elected from each of the nine Councilor districts and six at large, two of whom shall be elected from the County of Los Angeles, and four from the remainder of the State. Not more than three Councilors shall be elected from any one Councilor district. These officers shall be elected by the House of Delegates at the time and in the manner duly provided in this Constitution and By-Laws.

Said motion was duly seconded. Upon the unanimous approval of the House, the Secretary was so instructed to make the correction in Article VI, Section 1, of the Constitution.

Upon the motion of George H. Kress of Los Angeles, seconded by Gayle G. Moseley of San Francisco, it was unanimously

Resolved, that the State assessment per capita for each member remain as fixed for the previous year, \$7.00.

Badges.

Ferdinand Stabel of Redding then addressed the House on the matter of suitable badges, in the form of a button for the next meeting, recommending that an insignia of some distinction be adopted and worn by the Society. Upon motion duly had and seconded, the Chair appointed a committee of three,—Ferdinand Stabel of Redding, George H. Evans of San Francisco, and Gilbert M. Barrett of San Francisco,—to select such a badge and report to the Council.

There being no further business before the House, upon motion it was regularly moved and seconded that the House of Delegates adjourn to meet at Hotel Del Monte, Del Monte, California, May, 1920.

THOSE REGISTERED AT THE FORTY- EIGHTH ANNUAL MEETING, MEDICAL SOCIETY STATE OF CALIFORNIA, SANTA BARBARA, APRIL, 1919.

A

Abbott, F. F.; Adams, Ben O.; Adams, L. P.; Allen, Chas. Lewis; Allen, F. E.; Allen F. M.; Alvarez, W. C.; Anderson, C. W.; Anton, Francis L.; Anthony, E. H.; Armstrong, Veturia C.; Arnold, C. H.; Austin, M. O.

B

Bagly, H. C.; Bailey, W. C.; Bakewell, Benj.; Barbat, J. H.; Barry, Wm. T.; Baar, G., Portland, Oregon; Barrett, Gilbert M.; Barrow, John V.; Bates, J. A., Hillsdale, Mich.; Baxter, Frank S.; Beattie, W. A.; Beckett, W. W.; Beckman, O. H.; Bell, C. A.; Benson, H. J.; Berg, F. H.; Bering, R. E.; Betten, M. E.; Bine, Rene; Bishop, T. W.; Black, Stanley P.; Blatherwick, A. A.; Bobbitt, A. N.; Boller, Phil.; Bowen, Fred P.; Bowman, W. B.; Boyd, E. F.; Boyer, H. R.; Brainerd, H. G.; Bramkamp, A. H.; Breed, Lorena M.; Brem, Walter V.; Brennan, G. F.; Bratend, Theodore, Minnesota; Browne, J. Wiley; Brown, Adelaide; Brown, G. L.; Brown, George W.; Brown, J. McK.; Brown, J. R.; Brown, Philip King; Brown, Rexwald; Brown, R. W.; Brown, T. A.; Brown, Warren, Tacoma, Wash.; Browning, C. C.; Brunn, Harold; Buckman, R. W.; Buffum, R. L.; Bullock, H. N.; Burnham, M. P.; Burnside, Chas. P.; Burton, F. A.; Butler, F. O.; Butt, E. G.

C

Campbell, Mary P.; Campbell, W. H.; Cameron, H. McD.; Carpenter, E. R. (Capt.), El Paso, Tex.; Carpenter, F. B.; Carrington, Paul; Carter, C. E.; Carter, J. J.; Carter, W. E.; Charlton, A. T.; Chester, E. J.; Chessman, F. N.; Clark, Jonas; Clark, W. A.; Cochran, Guy; Coffey, T. J.; Coffey, W. B.; Cole, George L.; Collins, Asa W.; Cottrell, Chas. C.; Cowles, D. C.; Craig, Wm. H.; Criley, C. H.; Crosly, Daniel; Cross, W. W.; Crossan, John W.; Crane, W. R.; Crawford, John; Crawford, W. W.; Crespin, Egerton; Crum, Robt. L.; Cummings, J. C.; Cummings, Roland; Cunningham, W. E.; Cunnane, T. E.; Curtiss, C. L.

D

Dakin, W. B.; Dameron, J. D.; Davis, A. L.; De Puy, C. A.; De Puy, E. Spence; de Muralt, W.; Detling, Frank; Dickson, C. S.; Dietrich, H.; Dillon, Jas. R.; Dillon, O. T.; Dilworth, W. D.; Dowright, Sass. M.; Dudley, W. H.; Duncan, Rex; Dunsmoor, Nannie C.; Dwight, Sass., Chicago, Ill.

E

Eastman, F. M.; Ebright, George E.; Edwards, T. C.; Ehuncher, A. H.; Eloesser, Leo; Ely, L. W.; Ellis, H. Bert; Ellis, Lulu T.; English, C. F.; Enos, Daniel U.; Emerson, Mark L.; Emmons, A. B., Boston, Mass.; Evans, George H.; Ewer, E. H.

F

Feeley, Matilda A.; Fife, Joseph; Fishbaugh, E. C.; Fletcher, Harold A.; Flint, Wm. H.; Foote, Chas. G.; Fox, C. M.; Franklin, Jas. W.; Franklin, Walter Scott; French, J. Rollin; Frick, Donald J.; Fulton, Dudley.

G

Gallwey, John; Geiger, J. C., (U. S. P. H. S.), Washington, D. C.; Gibbons, H. W.; Gilbert, Wm. H.; Gilliland, Margaret; Gillard, James Z.; Glenn, Robt. A.; Goodman, M.; Gottlieb, A.; Graham, H. B.; Graves, John H.; Gray, Etta; Grosse, Alfred; Gundry, F. J.; Guidinger, W. E.; Gundrum, F. F.

H

Hadden, David; Hagadorn, J. Lee; Hamlin, F. A.; Hamlin, O. D.; Hamman, A. F.; Hanna, W. J.; Hare, George A.; Harris, Eva L.; Harris, Wm. A.; Hart, W. E.; Hartwig, M.; Harter, I. F.; Hartman, George W.; Haskell, P. F.; Hasson, D. W.; Heppner, Maurice; Hennemuth, J. L.; Henderson, A. M.; Henry W. O.; Hibben, J. S.; Hill, Harold P.; Hill, H. G.; Hill, W. H.; Hinman, Frank; Hoag, Carl L.; Hoisholt, A. W.; Hoosi, Frank H.; Howard, H. W., Portland, Ore.; Hromadka, A. B.; Hubble, J. E.; Huggins, W. L.; Hunkin, Samuel J.; Huntton, H. A.; Hurwitz, Samuel; Hutchinson, Randall.

I

Inman, Thomas S.

J

Jacob, Wm. R.; Jacobs, E. H.; Jacobs, Louis C.; Jackson, Josephine A.; Jenson, C. A.; Jewel, R. T.; Johnson, Carl; Johnson, J. L.; Johnson, Theodore F.; Jones, Ellis; Jones, W. H.; Jordan, P. A.

K

Kahn, Maurice; Kelsey, A. L.; Kelley, Frank L.; Kellogg, W. H.; Kempff, L. A. (Capt.), Camp Kearney; Kenyon, C. G.; Kenyon, F. O.; Kiefer, Hugo A.; Kiger, W. H.; Kilgore, E. S.; King, John C.; King, Jos. M.; Kinney, L. C.; Kinney, L. G.; Knapp, E. V.; Kirk, Josiah H.; Kirschner, H. E.; Kress, George H.

L

Lamorce, Edith V. A.; Lay, F. H.; Legge, Robt. T.; Lehr, Stella R.; Lennon, M. B.; Lewis, W. M.; Liles, L. M.; Lissner, Hans; Little, T. Col.; Livingston, W. R.; Lobingier, A. S.; Lockwood, C. D.; Lokrantz, Sven; Longbaugh, R. L.; Lowman, C. L. (Capt.), Letterman Hospital; Loomis, F. M.; Lissner, Henry; Lucki, J. B.; Lucas, W. T.; Lund, Etta S.; Lund, Georg J.; Luton, G. R.; Lynch, F. W.

M

Mackenas, R. H.; MacGowan, Granville; MacRae, John; Mansfeldt, Oscar; Mansur, T. W.; Martin, H. R.; Mattison, C. W.; Mathé, Chas. P.; Mattison, F. C. E.; McArthur, R. R.; McArthur, W. T.; McGettigan, C. D.; McKellar, Jas. H.; McNaught, Harvard; McReynolds, R. D.; Merrill, B. E.; Metzger, J. A.; Mikels, Frank M.; Miller, Chas. H.; Miller, F. W.; Molitor, N.; Mortensen, W. S.; McClenahan, H. C.; McCoy, George W.; McFarlane, A. H.; McLaren, J. L.; McNiele, Lyle G.; McNeile, Olga; Michelson, Lewis; Miller, R. W.; Mills, Lloyd; Moffitt, H. C.; Molony, Martin; Morton, A. W.; Morris, C. A.; Moseley, G. G.; Moore, Ross; Moore, W. Oliver; Munroe, H. B.; Myers, Laura T.

N

Nast, Henry D.; Neel, J. Craig; Nelson, Chas. F.; Newell, Edward; Newman, Lester; Newman, P. H.; Newton, E. A.; Nielsen, J. C. E.; Nusbaumer, Pauline.

O

O'Brien, J. J.; O'Connor, Roderic; Oettinger, Bernard; Oldham, John; Olds, W. H.; Oliver, H. R.; Opdyke, Ralph; Osborn, Harold B.; O'Neal, Robert; Osborne, A. E.; Otis, L. J.; Owen, C. S.

P

Page, C. W.; Paine, J. C.; Parkin, V.; Parkin-

son, Jas. H.; Peck, A. H.; Peers, Robt. A.; Percy, J. F. (Major) Camp Kearny; Perkey, A. B.; Peterkin, S. G.; Phillips, L. E.; Pickard, R. J.; Pietrafesa, Rocco; Phillips, A. R.; Phillips, P. T.; Pinness, George; Player, L. P.; Poesch, H. R.; Pope, S. T.; Pollock, Robert; Pottenger, F. M.; Powell, Barton J.; Powell, Dewey R.; Power, H. D'Arcy; Powers, L. M.; Preston, A. W.; Purdy, A. H., Milwaukee, Wis.

R

Ramsay, J. A.; Reber, W. N.; Reed, A. C.; Reed, Elgar; Rees, C. E.; Rees, H. C.; Reeves, W. R.; Reid, E. H.; Reinle, George G.; Reynolds, F. W.; Richards, Dexter N.; Riddle, Julia; Rigdon, R. L.; Rinehart, H. S.; Rixford, Emmett; Robertson, H. M.; Robinson, Samuel; Roblee, W. W.; Rogers, Arthur M.; Rogers, A. R.; Rogers, F. L.; Rosenkranz, H. A.; Roth, Leon Joseph; Rowe, Albert H.; Rowe, Chas. H.; Rowell, H. N.; Root, S. W.; Ryan, L. M.; Ryan, L. R.; Ryan, L. X.; Ryfkogel, H. A. L.

S

Sampson, M. H.; Schall, Albert J.; Scholtz, Moses; Schneider, E. H.; Scott, A. J., Jr.; Schuchow, W. B.; Schussler, Herman, Jr.; Seabalt, Gertrude C.; Sewall, Edw. C.; Seawell, J. W.; Seymour, Eleanor; Seymour, J. H.; Shelton, A. Belle; Shelton, G. S.; Sherk, H. H.; Sherman, H. M.; Sherrard, F. C. E.; Shickle, Chas.; Shields, Edgar B.; Shoemaker, Harlan; Shook, F. M.; Shortle, A. G.; Albuquerque, N. M.; Simonds, Paul E.; Simpson, Frank M.; Smith, A. H.; Smith, Dudley; Smith, Jas. F.; Smith, Rea; Soiland, Albert; Spalding, Alfred B.; Spencer, George A.; Spencer, John C.; Stabel, F.; Stanley, L. L.; Stadfield, C. G.; Stanley, Leo L.; Stansbury, M. P.; Stansbury, O.; Stevens, Wm. E.; Stillman, Stanley; Stivers, Chas. G.; Stoddard, C. S.; Stoddard, F. A.; Stork, V. E.; Stoughton, A. V.; Stover, W. M.; Stratton, R. T.; Strietman, W. H.; Strong, D. C.; Sullivan, C. J.; Sullivan, J. F.; Swearingen, C.; Swetnam, C. R. K.; Sweet, Earl B.; Sweet, Robt. B.

T

Taltavall, Wm. A.; Tebbe, Fred. H.; Thayer, J. W.; Thomas, C. F.; Thomas, Hayward G.; Thornton, A. J.; Tulfu, Gavin J.; Truley, F. A.; Trueworthy, John W.; Trumann, W. B.

V

Van Zwalenburg, C.; Vecki, Victor G.; Von Adelung, Edw.; Voorhies, H. M.; Voorsanger, W. C.

W

Wagner, Frank J.; Wagner, H. L.; Walker, A. W.; Walker, B. F.; Walker, J. R.; Walker, W. H.; Wall, F. M.; Watters, Ethel M.; Webb, Frank R.; Welpton, Martha; Wells, George S.; Wells, S. M.; Grand Rapids, Mich.; Welty, Cullen F.; Wessels, A. B.; Wessels, Walter; Weil, Conrad; White, Carlos M.; White, Harry O.; Wills, Wm. Le Moyne; Williams, Ralph; Wilson, Carl Groves; Williams, E. H.; Whitney, E. W.; Wing, P. B.; Witherbee, O. O.; Wood, C. B., (Major) U. S. Army; Wood, Neal N.; Wood, W. A.; Woolf, M. S.; Wrinkle, George S.; Wylie, D. B.; Wy-more, W. W.

Y

Yates, John C.; Yerington, H. H.; Young, W. R.

Z

Ziele, A. H.

EXHIBITORS AT THE FORTY-EIGHTH ANNUAL MEETING OF THE MEDICAL SOCIETY, STATE OF CALIFORNIA, SANTA BARBARA, APRIL, 1919.

Hanovia Chemical & Manufacturing Company of New York. Quartz, Mercury, Vapor Equipment. Represented by L. B. Pambrun of San Francisco.

Alqua—the Improved Alkaline Water. By Shasta Water Company, San Francisco. Represented by A. H. Newman, San Francisco.

Rieber Laboratories, San Francisco. Manufacturers of X-Ray Outfits, Electro-Medical Apparatus. Represented by Wm. O. Eddy.

R. L. Scherer Company, Los Angeles and San Francisco. Surgeons' and Hospital Supplies and X-Ray Apparatus. Represented by R. L. Scherer. Keniston & Root, Los Angeles and Sacramento. Hospital and Surgical Supplies. Represented by Mr. Root.

Book Review

Mental Diseases. A handbook dealing with diagnosis and classification. By Walter Vose Gullick. Illustrated. pp. 142. St. Louis: Mosby. 1918. Price \$2.00.

This little handbook will be useful to those who know little or nothing of psychiatry, but are called by circumstances to treat or judge of psychoses. It is based upon the classification of the Army Medical Department. Its clear and refreshing English is surprising in a medical book.

L. E.

Information for the Tuberculous. By F. W. Wittich. 150 pp. St. Louis: Mosby, 1918. Price, \$1.00.

In this little work the author publishes a series of weekly talks which he gave his patients while doing sanatorium work. Each chapter is a discussion of some symptom or phase of tuberculosis, written in popular style so as to be intelligible to the layman. The book should certainly prove of value to the struggler against tuberculosis, as it will answer the many perplexing problems which present themselves. It should also prove of some value to the physician handling tuberculous patients, giving him suggestions for instructive talks and how to phrase them. In this spirit we commend the book to our readers.

W. C. V.

A Text-Book of General Bacteriology. By Edwin O. Jordan, Ph. D., Professor of Bacteriology in the University of Chicago and in the Rush Medical College. Sixth edition thoroughly revised. Octavo of 691 pages, fully illustrated. Philadelphia and London: W. B. Saunders Company, 1918. Cloth \$3.75 net.

The sixth edition of this well-known and valuable teaching manual has been revised and brought up to date, especially in the matter of the newer work on the meningococcus and the pneumococcus. In practically all other respects, it remains the same concise, logical and easily studied classroom guide. In this latter field it is to be most highly recommended.

G. H. T.

Principles of Bacteriology. By Arthur A. Eisenberg. Illustrated. pp. 198. St. Louis: Mosby. 1918. Price \$1.75.

This book may be recommended to laboratory technicians. It gives a number of useful laboratory formulae and considerable information about the more common organisms. To expect nurses, however, for whom the book is intended, to learn about Ehrlich's theory, haptophore groups etc. is asking too much of young women already overburdened with much useless theory.

L. E.

Compendium of Histo-Pathological Technic. By Emma H. Adler. 92 p. New York: Hoeber. 1918.

This little manual by a laboratory technician contains nothing of theory, but sufficient of practice to make it useful to beginners in pathological laboratories. It does not pretend to the field of larger laboratory manuals, but it may be recommended especially to non-medical technicians.

L. E.

Neurosyphilis, Modern Systematic Diagnosis and Treatment presented in 137 case histories. By E. E. Southard and H. C. Solomon. pp. 496. Boston: W. M. Leonard, 1917.

This volume covers the ground very comprehensively. The histories are followed by a summary and key which give a careful resume of our present knowledge of neurosyphilis and two appendices on technic and treatment.

It is an advantage to have a subject discussed in the method adopted by the Boston Psychopathic Hospital in this, their second monograph, and illustrated by examples from the large clinical material at the authors' disposal, selected with acumen and judgment. There are few branches of medicine in which the ordinary "book-case" is so seldom met with or in which the student is more liable to be confused by the baffling problems that are met in practice. Here we have actual case histories, elaborately reported and analyzed, the results of treatment—which is steadily growing more hopeful—and the careful record of autopsies in fatal instances. All are illustrative of different manifestations of syphilis of the nervous system, and symptoms are not only described, but discussed fully and explained in a lucid and practical way whenever explanation is possible. A good index and classification add to the value of a practical and well written work.

G. A. H.—A.

United States Army X-Ray Manual. Authorized by the Surgeon General of the Army. Prepared under the direction of the Division of Roentgenology. 506 pp. 219 illustrations. N. Y.: Paul B. Hoeber. 1918. Price \$4.00.

This excellent manual should be in the possession of every one doing roentgenology, whether specialist, technician or practitioner who only takes an occasional plate. The whole subject from X-ray physics to therapy is covered concisely, yet thoroughly, and very readably. It is clear and practical, and as it represents the combined ideas of the best minds in American roentgenology, it is authoritative and thoroughly up to date.

L. B.

Roentgenotherapy. By A. F. Tyler. 162 pp. 111 illustrations. St. Louis: Mosby. 1918. Price \$2.50.

This is a very elementary and inconclusive survey of the field of roentgen treatment. It contains glaring inaccuracies of statement, and the technique as outlined for many of the conditions is even dangerous, as the most essential factor in therapy, that of the target skin distance, is either omitted or carelessly considered.

The author advocates one technique for superficial lesions and another for deep conditions, a matter upon which roentgenologists have considerable differences of opinion.

The statement that an erythema dose should be administered, is frequently encountered, yet one looks in vain for the details of the technique of the standard erythema dose.

The book is thoroughly useless and capable of much harm.

L. B.

A Diabetic Manual. By Major Elliot P. Joslin. Illustrated. pp. 187. Philadelphia: Lea & Febiger. 1918. Price, \$1.75.

This book is exactly what the author intended it should be, a radically elementary, schematic presentation of the modern conception of diabetes and its treatment, designed for the mutual use of doctor and patient. The manual is a compend of Joslin's Treatment of Diabetes mellitus, providing a protable, practical ready reference and a foundation on which to base a detailed comprehensive study of the larger textbook. It is arranged in four parts: Part I is a primer of the general prin-

ciples of treatment and their application. Part 2 gives the details of treatment. Part 3 contains the recipes, menu, and tables of food values. Part 4 presents selected simple laboratory tests for examination of urine, estimation of sugar and acid bodies in the urine, the sugar in the blood and the carbon dioxide in the alveolar air. That the work is timely and not without a glint of humor is evidenced by the frontispiece and dedication, whereby it relates itself to the world crisis and warns the diabetic patient of his responsibility in food conservation. M. J. M.

Clinical Medicine for Nurses. By Paul H. Ringer. 286 pp. Illustrated. Philadelphia: F. A. Davis Co. 1918. Price \$2.50.

This is a description of the nature, causes and treatment of the more common diseases. It contains about the same kind and amount of material as the usual medical lectures given to nurses.

Personal Hygiene and Home Nursing. By Louisa G. Lippitt. 256 pp. Illustrated. N. Y.: World Book Co. 1919. Price \$1.28.

This, though a small book, of some 250 pages, comprises a section on hygiene, a description of the nature and causes of some of the more common diseases and the essential points to be observed in their treatment; the methods of carrying out the simpler nursing procedures, such as women can be easily taught by a nurse, and the first-aid treatments for common emergencies. The hygiene section is particularly good. It includes valuable descriptions and illustrations of poor and correct postures in standing, walking and sitting; exercises to correct common bodily defects; instruction that children should be given regarding the care of the mouth, nose and eyes and the hygiene of the menses. These points especially, will make the book of value to mothers and the clear descriptions of nursing procedures will be of assistance to those who are taking elementary courses in nursing.

Diseases of the Digestive Organs. By Chas. D. Aaron, 2nd. ed. Philadelphia: Lea & Febiger. 1918.

While Professor Aaron's thorough discussion of the diagnosis and treatment of the diseases of the entire alimentary tract covers this extensive field in a most satisfactory way, the reviewer feels that the outstanding portion of the work is that portion devoted to the study of intestinal diseases by means of stool examinations. In this particular field the author has accomplished some of the best work that has yet been done. This is the second edition of the book and it is a volume that should be in the hands of the general practitioner as well as the specialist. It is exhaustive and authoritative enough to satisfy the requirements of the latter, and at the same time, so simply and plainly presented that the former will find it of frequent use. New chapters on the duodenum, on intestinal stasis and toxemia, and on flatulence, meteorism and tympanites are added. G. H. T.

Local and Regional Anesthesia, Including Analgesia. By Carroll W. Allen, M. D., of Tulane University, New Orleans, with an introduction by Rudolph Matas, M. D., of Tulane University, New Orleans. Second Edition, reset. Octavo of 674 pages with 260 illustrations. Philadelphia and London: W. B. Saunders Company. 1918. Cloth, \$6.50 net.

It is a pleasure to greet the second edition of this uncommonly complete monograph. The book includes chapters on the theory and practice of local anesthesia in general, on spinal, paravertebral and sacral anesthesia, on intra-arterial and intravenous local anesthesia and on alcohol injections of the gasserian ganglion and its branches in facial neuralgia. Chapters on prostatectomy under local anes-

thesia and on the new American anesthetic apothecin are noted among the additions to this new edition. The various procedures for anesthesia in particular operations are grouped by regions and are described in explicit detail, supplemented by numerous useful illustrations.

We might wish that the value of local anesthesia in reinforcing general anesthesia and economizing in quantity and duration of the ether or gas narcosis were more dwelt upon. This seems one of the most fruitful fields. This book is so excellently practical and so sure a guide to methods that still remain unmeritedly concealed from the many, that it may be fervently recommended to students and practitioners as a constant handbook and companion. We know of no single surgical monograph whose study will be better repaid in daily practice. —L. E.

The Surgical Clinics of Chicago. Volume III, Number 1 (February, 1919). Octavo of 236 pages, 75 illustrations. Philadelphia and London: W. B. Saunders Company, 1919. Published bi-monthly. Price per year: Paper, \$10.00; cloth, \$14.00.

Contents: Kellogg Speed: Surgical cases at an A. E. F. evacuation hospital. F. A. Besley: Secondary hemorrhages as observed in war surgery. V. D. Lespinasse: Blood transfusion. Carl Beck: Facial plastics. F. E. Simpson: Radium in malignant disease. Cancer base of tongue and epiglottitis; cancer of tongue; epithelioma of face. A. D. Bevan: Obstruction of ileum due to tuberculous ulcerations; Injuries of shoulder joint; Treatment of intestinal fistula by means of bismuth paste; Spina bifida; Carcinoma of face; Carcinoma in axilla; Sarcoma of labium. J. R. Harger: Sarcoma of liver in child of seventeen months; Sarcoma of testicle, with metastases in the lung simulating tuberculosis. Gustav Kolischer and J. S. Eisenstaedt: Traumatic rupture of kidney; Nephrolithiasis; Impacted ureteral stone; Syphilis of bladder. C. M. McKenna: Suprapubic prostatectomy; Short circuit of vas deferens; Tuberculosis of kidney. M. J. Hubeny: Roentgenologic demonstration of several unusual conditions of genito-urinary tract. G. E. Shambaugh: Diagnosis and treatment of certain otolaryngologic conditions. E. H. Ochsner: Three cases of sinus diseases. E. L. Moorhead: Gynecomastia or gynecomastia; Intraligamentous uterine fibroid complicated by pregnancy; compound fracture of ankle joint with forward dislocation of foot; Impacted intra-articular fracture of neck of femur. D. A. Orth: Strangulated femoral hernia, spinal anesthesia. T. J. Watkins: Postoperative catheter cystitis. A. J. Ochsner: Hypospadias; Excision of ganglion from hand. M. A. Bernstein: Talipes cavus.

Correspondence

A JUDICIOUS CRITIC.

To the Editor: First off I wish to say that I find the Journal the brightest, snappiest, most forward looking publication of the kind with which I have ever come in contact. The only criticism—nay, I have none! The one regret is that scientific matter of a parity with the editorial is rather scanty.

In my report, as delegate, to my County Society I made mention of your expressed desires and urged our members to respond. For well I know that some of the very best things come out of the smaller organizations; their papers are more human, more vitalized and less pyrotechnic, as a rule, than those which are presented to the larger societies.

I make bold to offer one suggestion: Push the "get together" idea a little harder. It is the most important thing at the present moment. It is the thing which we must nurture and cultivate and bring to fruition if we are to bring anything but

ignominious defeat out of the present and pending contests.

Most cordially yours,
D. B. WYLIE, M. D.

Salinas, Calif.

RE ANNUAL TAX—GOVERNMENT SERVICE.

Sacramento, Cal., May, 1919.

Dear Doctor:—

The 1919 Legislature has passed Senate Bill No. 405, introduced by Senator Sharkey of Martinez, Contra Costa County, "authorizing the State Board of Medical Examiners to refund taxes, fees and penalties collected by mistake, error or inadvertence, and providing an appropriation therefor."

His Excellency Governor Stephens has signed Senate Bill 405, approving the provisions thereof, which will become effective ninety days after date of the adjournment of the Legislature, and thereafter the Board is empowered to make refund of a tax or penalty paid by any licentiate in government service, as noted.

The Board of Medical Examiners has the honor and pleasure to inform you that an opinion, approved by Hon. U. S. Webb, Attorney General of California, has been rendered, which permits the Board of Medical Examiners to exempt from payment of the \$2.00 annual tax, those licentiates who gave their services to the National Government during the recent war as commissioned medical officers "in the United States army, navy or marine hospital, or public health service."

Any licentiate of the State of California who held a commission as a medical officer in the U. S. army, navy or marine hospital, or public health service, is exempt from the payment of the tax **while in the discharge of his official duties.** If a licentiate was so connected, either in California or elsewhere, for a period of time covering January 1st of one year to January 1st of the succeeding year, such licentiate is exempt from the tax. In the event that during the portion of any year the licentiate **was not so connected**, then the tax must be collected.

Proof of either exemption from tax or to claim refund will suffice if the licentiate forwards to the Board of Medical Examiners an affidavit **containing** a copy of both appointment and discharge further substantiated by statement therein of the exact date of commencement of service and termination thereof, with rank at date of discharge. If still on active duty the licentiate will so state.

We trust that you will bear with us until the new bill becomes operative, inasmuch as there is a tremendous amount of detail incident to checking up the large number of licentiates who demonstrated their fervent patriotism in aiding our government.

Yours very truly,
CHAS. B. PINKHAM,
Secretary-Treasurer.

DEFECTS IN CALIFORNIA'S INDUSTRIAL ACCIDENT INSURANCE LAW.

To the Editor: I desire to add my views, gained from years of experience in this particular field of practice, to those already expressed in your columns, with the hope that they may be of benefit to those who undertake in the near future to have enacted many much needed improvements in statutes now governing industrial accident insurance. I shall endeavor in each criticism to state plainly my grounds for the same.

In a recently published article one of my colleagues assailed the industrial accident insurance commission, the present insurance laws and their execution, as being disgustingly swallowed up in politics. I wish to take strong exception to his views, and state that through several years of intimate association with the industrial accident insurance commission and the state compensation fund I

have failed to see a single instance where I believe politics played a part in the administration of the present laws.

It must be remembered that the present statutes were enacted in the face of terrific political opposition and were far from what the good people who were the sponsors started to put through or desired. Many compromises had to be made in order to get any sort of a bill through the legislature, but it was a beginning, and a very good one under the circumstances, and as such has helped to educate and convince many of the fair-minded among the opposition, of the justice of the plan, so that they are now ready to assist in the work of improving the results of that faulty, but nevertheless honest effort.

I shall begin by cracking the hardest nut first. I heartily agree with those who favor the free elimination of choice of physician by the employee or employer, the choice to be left to the insurance carrier, for the reasons (1) that the insurance carrier has to pay the bill and consequently it is to his best interests to choose the most skillful in order that the most rapid and best results be obtained; and (2) he is more competent to select a good physician than the average workingman, who is very likely to select some physician who in his opinion had successfully confined his wife or some friend's wife, but who may be quite incapable of doing good work on a compound fracture. I know of an instance where it cost the insurance company \$2000 because it reluctantly yielded to the demand of the injured employee to have his family physician care for his Pott's fracture.

I believe that the fee schedule is generally too low, particularly for fractures and operative cases. In regard to the fees for first and subsequent visits I believe the present fee is just for office and hospital, but is too low for out and home calls, where more time is lost; consequently the mileage fee should be raised, or, what I believe would be even better, a charge at the rate of \$5 per hour by day and double that rate at night should be allowed, in addition to a charge for professional services; and furthermore, a charge should be added to cover traveling expenses in accordance with regular auto hire. Under the ruling of the Industrial Accident Insurance Commission, these latter charges are allowed only under conditions of extraordinary difficulties encountered by the surgeon, but even such charges are usually questioned by the insurance company, with the resultant difficulty in making the collection, as well as bad feeling between both parties concerned.

It is the custom for most insurance carriers to contract their medical service wherever possible. I contend that this is absolutely wrong, inasmuch as it is an injustice to both the surgeon and the workingman. The average surgeon is not familiar with the cost and is not possessed of a keen business sense for figuring on these points, and even if he is, he is a professional man and not a gambler, while insurance is purely a gambling business and as such the insurance company is amply provided to meet any extraordinary hazards; consequently I say most emphatically, let us adhere strictly to the fee schedule, let the insurance company take the chance and give the surgeon what he actually earns. Furthermore, I am sure the injured workingman will get better and more conscientious care under the fee-schedule rule. I believe that it is wrong and works directly against life and limb of the injured when the insurance policy carries the compensation end only, and the employer takes care of the medical service, in order to lessen his premium cost. I positively know of a company engaged in a very hazardous occupational business who, as soon as they changed their policy in order to cut down their premium, went out in search of a surgeon to take full charge of their accident work with an offer of only \$100 per month for his services, and mind you, the location

was isolated and the surgeon was expected to give his entire time to the company. At this time their plant was employing 1600 men with a daily average of twenty-five accidents. This instance is certainly frightful, and yet I know of others almost as bad if not its equal.

The State Industrial Accident Commission, the State Compensation Insurance Fund were created in good faith in order to give the workingman as well as the employer a square deal. It was also the initial aim of the latter to raise the standard of the surgeon's work and to see that he was better paid for his services, but with the loopholes in the laws that were enacted in the face of strong political opposition, it has been impossible to get good results all the way down the line. Tricksters in the insurance business have taken advantage of these loopholes in order to beat the injured man out of his compensation, the doctor out of his fee, and to beat the law of fixed premium rates. I know of one insurance company, not being able to get the business by underbidding its competitors, actually made "phoney" stockholders in its company of its policyholders and then gave them a fabulous dividend which was equivalent to at least one-half of the premium. This resulted directly against the interests of the injured man. I have in mind one of their contracts where a doctor was hired at a ridiculously small salary and during eight months of the life of this contract where 800 men were almost constantly employed, this company gave only one injured man a compensation check, and this was shaved at least one-third of the amount due. This company flourished by the amount of its nefarious business under the very eyes of the Industrial Accident Commission.

So now I say to all of my colleagues, let us not go off half-cocked and criticize, but get down to serious thinking, devoid of selfishness, listen to those who have gained knowledge by actual experience, and help to revise these laws in a manner to head off the trickster, give the workingman a square deal, protect the employer, and let the surgeon have what is justly due him.

CLYDE BRIGGS LAUGHLIN, M. D.,
Lieutenant, M. C., U. S. A.
Presidio of San Francisco, Cal., April 18, 1919.

County Societies

LOS ANGELES COUNTY.

The Los Angeles County Medical Association had its regular meeting April 3, 1919, at 8 p. m. in the Arrow Theatre of the Hamburger Building.

Dr. W. T. McArthur called the meeting to order, and, dwelling on the progress of aviation, he fittingly introduced Col. E. R. Lewis, M. D.

Dr. Lewis' subject was "Aviation Medical Development." He thought that in the air service there is something different in addition to what any other service required. The examinations covered everything of importance. The standard was necessarily high and the work correspondingly slow. One new thing was internal ear examination; that and the turning chair were interesting. There is an environmental difference, such as oxygen privation. A new field has thus opened up in general medicine. The air soldier differs from the ground soldier in that he cannot stand still. Motion must be at the rate of forty-five miles an hour before the machine can rise in the air. This motion is a potential for safety or disaster. The latter is obviaable by means of the special senses which sense the motion. There are the surface tactile sense and the deep sensibility, then there is vision, and fourth, the internal ear sensing motion which is difficult to standardize. The hairs floating in the lymph of the internal ear will lag behind in a man turned to the right. When thus turning to the right the impulse goes to the cere-

bral sensorium, and vision verifies that he goes to the right. When blindfolded the impulses only come from the ear and obliges the recognition of location by the sense of touch. In turning to the right he knows how to estimate twenty seconds. These observations are used as a test to select the fit. After a flyer becomes proficient, he begins to indulge in stunts. Three hundred loops were turned in sixty-seven minutes, and 312 in sixty-six minutes, when the performer ran out of gasoline. The flyer must learn to estimate misinformation. Post-whirling vertigo has caused many fatalities. Like a baby sitting up and then falling to the side soon learns to guard itself from bumping its head due to incremental motion, the flyer senses the motion in the beginning and catches himself in time. The impulses from the internal ear are learned by prospective stunts. Using the ear for investigation determines something about the individual. Vertigo should be analyzed. A case complaining of vertigo can be diagnosed with accuracy. One hundred thousand individuals have been examined for adaptation to new environments.

Major Willard J. Stone, M. D., of Toledo, Ohio, spoke on "Scientific Surgery with Medicine." He dwelt on pneumonia as a disease of importance in Base Hospitals. Of four thousand cases there were 400 empyema cases, or 10 per cent.; 275 of 410 empyema cases were operated; thirty-five recovered under aspiration. Last February there was a fatality of 15 per cent. in pneumonia; 38 per cent. in streptococcus pneumonia, with a mortality of 15 per cent. There were different types, such as streptococcus with pneumococcus, streptococcus hemolyticus. Five to seven aspirations preliminary to operation, reduced the mortality to 16.5 per cent. Of ninety-four cases there was a mortality of 9.5 per cent. The thickness of the pus often makes aspiration difficult, but in filling the cavity with salt solution before aspiration and repeating until more comes out than was introduced, gives satisfactory results. In operating on the affected side, remember the height of the diaphragm, lest it be perforated and the abdominal cavity entered. In one series of cases 43.75 per cent. recovered, in another series 82.6 per cent., and in still another series 93.3 per cent. of streptococcus empyema recovered; a wonder so many recovered. When a pneumonia patient is not doing well, remember the five most common complications, i. e.: empyema, purulent pericarditis, nephritis, purulent peritonitis, substernal pus cavity. After operation there may be pneumonia on the opposite side. Peritonitis never occurs unless empyema was present.

Pasadena Branch.

The Pasadena Branch of the Los Angeles County Medical Association held its regular meeting at the Pasadena Hospital, Tuesday evening, April 8, 1919.

Subjects:

"A Few Observations of the Heart of Soldiers."

J. D. Condit, M. D.

"Head and Throat Complications in Influenza."

J. Ross Reed, M. D.

"Non-Tuberculous Infections Following Influenza."

J. B. Luckie, M. D.

President, C. H. Parker, M. D.; Secretary, C. F. Metcalf, M. D.; Councillor, F. A. Speik, M. D.

Harbor Branch.

Regular meeting in Council Room, City Hall, Long Beach, March 28th.

Program.

"The Physician in Business Life."

R. A. Terry, M. D.

Discussion by Drs. W. L. Dickerson, F. W. Reynolds and H. H. Heylman.

"Benefits of Membership in the Medical Society of the State of California."

Harlan Shoemaker, M. D.

Sec'y-Treas. of L. A. Co. Med. Ass'n.

NEW SECTION.

The Los Angeles Obstetrical Society was accepted as a section of the Los Angeles County Medical Association at a meeting of the Council held March 13th.

April 28th Meeting.

Special meeting of the Association at the usual place and time. Maurice Dunsmore, M. D., gave some case reports on "Encephalitis Lethargica."

"Examination and Classification of Aviators," by Captain Joseph F. Grant.

Discussed by Dr. Shivers and others.

Public Health Pictures.

Health Commissioner L. M. Powers, with the co-operation of the United States Public Health Service, exhibited at the Majestic Theatre, from March 30th to April 6th, the educational motion picture entitled, "Not According to Precepts" and "Fit to Win."

Child Welfare.

The year 1919, being nationally proclaimed as Children's Year, it seems fitting to call to the attention of the members of the Los Angeles County Medical Association an important Welfare Work that is being conducted in this city; and to ask their co-operation in this work. Eight Infant Welfare Conferences are being held weekly.

The feeding and hygienic care of nearly twenty-five hundred babies under the age of two was supervised during the year 1918.

Breast feeding is strongly encouraged.

Rational milk formulæ are prescribed and milk dispensed to the needy.

Nurses follow up the cases in the home and teach mothers to prepare the babies' food and properly care for infants.

We are hopeful of enlarging the work this year and would like to secure a list of physicians whom we might call on as needed. If you are interested, please phone Dr. Oscar Reiss, Superintendent, Infant Welfare Work, Pico 128, 61085.

Hotel Now Sanitarium.

Sierra Madre.—The old Sierra Madre Hotel, which has harbored many notables during the boom days of California, has been renovated and altered as a sanitarium for the treatment of liquor and drug addicts. The Sierra Madre Hotel will be operated under a long-term lease.

Feat of Los Angeles Army Surgeon.

Dr. Lorenzo F. Luckie, Major in the Medical Corps, U. S. A., enjoys the distinction of having accomplished the seemingly impossible in surgery by repairing a broken neck in an army aviator. The operation was so successful that after being discharged from the hospital, the patient was able to pass a Class A physical examination and was taken back into the air service.

Radium Institute.

Through the interest of Mr. King C. Gillette, there has been established in Los Angeles the Radium and Oncologic Institute. A modern fire-proof building to cost about \$65,000, with approximately 15,000 square feet of floor space, is now under construction. This building will be devoted exclusively to the work of the institution, and will contain perfectly equipped laboratories for clinical and research work, a most modern and complete X-ray equipment and more than one gram of radium, with the necessary emanation apparatus and appliances, affording facilities for radium therapy unequalled west of the Atlantic Coast.

The purpose of this institution is to provide unexcelled facilities for radium treatment, and the study and treatment of neoplastic disease. The benefits afforded by this institution will be available to all requiring such treatment, and at a fee consistent with the financial condition of the

patient. Profits earned above those required for the expense and maintenance of the institution will be devoted to scientific and research work.

Dr. Rex Duncan has been selected as Medical Director, and will have full charge of the treatment of patients and conduct of the institution. There will be a resident staff, consisting of a pathologist, roentgenologist, physicist, and other necessary assistants. This institution represents an expenditure of more than \$200,000 and will be ready for operation early in August.

Personals.

Dr. C. W. Decker has been promoted to a Colonelcy in the Medical Corps of the Army. He is now Commanding Officer, Hospital Center, and Commanding Officer of all United States troops at Allerey, Saone et Loire, France.

Miss Elsie Schlund of Anaheim arrived in charge of the nurses of Base Hospital 52, which had been stationed in France, where more than 20,000 cases were handled during the Meuse-Argonne fighting.

Dr. L. M. Powers, for many years head of the Health Department of Los Angeles, has been re-appointed as Health Commissioner by Mayor Woodman. In his letter to Dr. Powers, the Mayor says: "The method of your conduct and control of the Health Department and the splendid record that the city made in the influenza fight warrants your continuation in office. I congratulate you on the clean and efficient manner in which you have conducted the affairs of the department."

In honor of Los Angeles physicians and surgeons who have returned from war service, Drs. Walter Lindley and John R. Haynes gave a dinner at the California Club, which was attended by sixty of the nearly 200 men of the medical profession of Southern California who gave their services to the colors. More than half of the physicians who went to war are still overseas or in service. Guests included Congressman H. Z. Osborne and Gurney Newlin, who has returned after serving as a Major in the Red Cross overseas, and who were seated at the speaker's table with Dr. Rea Smith, who organized and had charge overseas of Naval Base Hospital No. 3, and Drs. J. C. Ferbert, Guy Cochran, and E. C. Moore of that unit; Dr. Charles C. Browning, who has been serving at Fort McArthur, and Dr. Dudley Fulton, Lieutenant-Colonel in charge of the Base Hospital at Camp Lewis, and Dr. H. H. Sherk. Other guests at the dinner included Dr. Granville MacGowan, chief medical executive of the local draft boards, and Dr. J. L. Pomeroy, County Health Officer. Other service men honored as guests at the evening's dinner were: C. W. Anderson, Phil Boller, William B. Bowman, E. E. Burk, Titian Coffey, E. L. Crispen, A. R. Dickson, Karl Dieterle, Donald Frick, William H. Gilbert, Hill Hastings, P. V. K. Johnson, A. H. Jones, George Laubersheimer, H. H. Lissner, Charles H. Lowell, William McKenna, Frank Miller, A. W. Moore, M. L. Moore, J. Ross Moore, W. H. Olds, Edward M. Palette, C. E. Early, S. F. Bothwell, Lasher Hart, A. S. Granger, J. Walter Reeves, Homer G. Rosenberg, Donald W. Skeel, C. G. Stivers, Earl Sweet, Clarence Toland, E. H. Wiley, L. Josephus, E. J. Cook, C. W. Cook, J. R. Cowan, W. G. Cochran, R. V. Day, W. W. Beckett, W. W. Hitchcock, W. T. McArthur, George L. Cole, H. Bert Ellis, Robert E. Haynes, C. V. Neslon, Frances Haynes Lindley.

At the California State Medical Society session in Santa Barbara, April 16th, Dr. H. G. Brainerd was elected First Vice-President and Dr. W. W. Kiger, Councillor.

Dr. Karl Dieterle, former police surgeon at the Receiving Hospital, returned to his post last night after being discharged as a first lieutenant from the Medical Corps of the army. Dr. Dieterle was attached to Base Hospital No. 35 in France and

was on board the transport Northern Pacific when she went ashore at Fire Island off New York on January 1st, last.

After more than eight months of active service with Base Hospital No. 35, Dr. George G. Hunter is back from France, and has resumed practice. Dr. Hunter left for France with the Los Angeles hospital unit as its neurologist and was stationed at Mars-Sur-Allier, France. The unit found itself in the center of a great battle area, and handled thousands of cases. While the greater portion of the original unit is still overseas, Dr. Hunter was detached from the service and sent home in charge of a convoy of wounded men.

Major A. M. Tweedie, lately discharged from the Medical Corps of the army, in which he was attached to the 158th Field Hospital, has resumed his practice. He was for eight months in active field service in the Argonne sector and in a hospital for allied prisoners near Metz.

Major Percival G. White has returned to his home and practice after five months' active service overseas, including important work with the army of occupation in Germany. Dr. White was in service on the Marne until last December, when he established a hospital of 1,250 beds in the Pyrenees Mountains and in January the hospital unit he commanded was ordered into Germany with the American army. He was in charge of the chief hospital at Prum until he was discharged, March 23.

Dr. W. M. Fearon, who has just returned from Mare Island, where he served for seven months as a lieutenant in the Medical Corps, has resumed practice.

Captain Fred Bowen, who has been in charge of surgical operating room, U. S. Army Base Hospital at Camp Fremont, has been transferred to the Surgical Service, Letterman General Hospital, San Francisco, Cal.

The hospital in charge of Lieutenant Colonel Dudley Fulton at Camp Lewis recently received the highest recommendation for efficiency from the War Department.

Information of the promotion of Captain James Steinberg, of the Fortieth Division, to the rank of major, was received here yesterday. Major Steinberg left for Europe with the 116th Ambulance Corps, Fortieth Division, in July, last. When hostilities ceased in November he was ordered to Paris for special work for the Peace Conference, and during the past six weeks has been in Russia with a special commission of army officers delegated to obtain information on political and economic conditions for the conference. While in Odessa he was given his commission as major.

ORANGE COUNTY.

The Annual Meeting of the Orange County Medical Society was held in the banquet room of James' Cafe, Santa Ana, on the evening of May 6th. A large attendance of members and their wives contributed to the success of the meeting, which in many ways was the best of many years. The address of the retiring president, Dr. H. A. Zaiser, on "The Economic Conditions Affecting the Physician," brought to our attention the many complex influences which have made the H. C. L. a very serious matter to the practitioner with a moderate income. Dr. Freeman acted as toastmaster in his usual versatile and entertaining manner. Among the first to respond was the President-elect, Dr. Tralle. The doctor made a strong address on the graces and virtues of woman, especially the doctor's wife, the response being made in a few well chosen words by Mrs. Violet. The Society was fortunate in having the pleasure of the company of Dr. C. D. Ball, who, though still incapacitated by his accident of November last, succeeded in attending the meeting and gave such a stirring speech that all present could see that he has still preserved his strong personality. The

doctor had considerable fun at the expense of some members of the fraternity who attended him during his illness. Dr. Dryer spoke of the origin of the Society thirty years ago and the fact that only three of the original members were living and present at the meeting. The doctor has made a complete and valuable history of the Society. Two returned medical officers, Drs. Tweedie and Wickett, gave extensive accounts of their service abroad. Short speeches were also made by Drs. Raisch, Boyd, Cushman, Jackson and Johnston.

Several members signified their intention to attend the meeting of the Southern California Society at Riverside.

Dr. D. C. Cowles of Fullerton is in a Los Angeles hospital, having undergone a major operation. His many friends hope for a speedy recovery.

PLACER COUNTY.

The regular meeting of Placer County Medical Society was held in the Masonic Temple in Auburn, Saturday, May 3d, Dr. B. Woodbridge, President, in the chair. A fair number of members were present and the visitors were: Major J. C. Geiger, Captain Winter, Drs. Hall, Lewis, Barton, Gillilan, Ward, Dunbar, Engle, and Mr. Guy P. Jones, Assistant Secretary of the California State Board of Health.

In addition to the business meeting, Major Geiger of the United States Public Health Service, who has been especially commissioned to investigate malaria in California, gave an extremely interesting and instructive address on "Problems of Malaria Control." The paper was discussed by practically all present.

Through the courtesy of Captain Winter, Dr. Gillilan and Mr. Jones, the moving picture film known as "Fit to Fight," which is being shown by the United States Public Health Service in co-operation with the California State Board of Health in the fight which is being made against venereal diseases, was shown. Discussion regarding the methods of venereal disease control was participated in by Captain Winter, Dr. Lewis and others.

SACRAMENTO COUNTY.

Monthly Meetings.

The regular monthly meeting of the Sacramento Society for Medical Improvement was held Tuesday evening, April 22d, at the Hotel Sacramento.

The evening was given over to the report of delegates to the Annual State Convention at Santa Barbara. It was the unanimous report of all the members who attended the convention that this was one of the most interesting and instructive meetings ever held by the State Society.

Those attending the convention from this Society were: Dr. J. H. Parkinson, Dr. F. F. Gundrum, Dr. G. A. Spencer, Dr. W. J. Hanna, Dr. A. M. Henderson, Dr. Howard Cameron, Dr. W. A. Beattie.

News Items.

Sacramento has taken a new departure in regard to the Nurses' Lecture Courses given by the medical profession. Instead of a separate lecture at each hospital, the training classes of each of the three hospitals meet together in a lecture room at the City High School. This eliminates duplicating the work and also tends to a better grade of instruction.

Dr. J. R. Snyder, Lieut. M. C., who has been Bacteriologist at the Letterman General Hospital, has returned and has accepted the position of City Bacteriologist.

New Members: Dr. H. R. Baird, transferred from Yuba, Sutter County, Cal.; Dr. B. C. Kern, Jackson, Amador County, Cal.

SAN DIEGO.

Dr. T. C. Burger has returned from France and been released from the M. C., U. S. A., and resumed the practice of obstetrics and surgery in his former office in San Diego.

Dr. Edgar A. Frauer has returned from service in the A. E. F. and resumed practice in San Diego.

Dr. J. A. Parks addressed the County Society at the regular meeting, April 22d, on "Examination for Tuberculosis in the Army."

A liberal delegation from the County Society plans to attend the Riverside meeting of the Southern California Medical Society.

Lieut. Col. Robert B. Preble addressed the Society on May 13 at a dinner meeting. The doctor spoke on experiences in France.

Dr. Thomas F. Wier is again among us and may be found at his former office.

SAN FRANCISCO COUNTY.**Society Meetings.**

Proceedings of the San Francisco County Medical Society.

During the month of April, 1919, the following meetings were held:

Tuesday, April 1—Section on Medicine.

1. Prevention of relapses in cases of arrested tuberculosis. S. Adolphus Knopf, New York City.

2. Case of probable patent ductus arteriosus in an adult. C. H. Arnold.

3. Report of cases. G. E. Ebricht.

Tuesday, April 8—General Meeting.

Differential diagnosis of peptic ulcer. W. F. Cheney.

Mr. and Mrs. William Fitzhugh have given \$12,000 to the Stanford University Medical School for the purchase of one gram of radium, for radium treatment in connection with the Actinography Department of the Stanford University Hospital. The net income is to be used for clinic beds for indigent patients, particularly for those who need either X-ray or radium treatment.

SAN JOAQUIN COUNTY.

The regular monthly meeting of the San Joaquin County Medical Society was held at the office of Dr. W. F. Priestly Friday evening, April 25th. Those present were: Drs. F. I. Conzelman, Grace McCoskey, F. S. Marnell, L. Dozier, C. F. English, B. J. Powell, L. Haight, F. P. Clark, N. E. Williamson, S. P. Tuggle, Margaret Smyth, W. F. Priestly, E. A. Arthur, W. C. Adams and R. T. McGurk.

A motion was passed instructing the secretary to write to Governor Stephens requesting him to veto Assembly Bill No. 933. Reports were given by the delegates who had attended the State meeting at Santa Barbara. Dr. R. T. McGurk told of the interesting discussions held in the surgical, gynecological and obstetrical sections, and the inspiring talks given at the meeting of the California League for Conservation of Public Health. Dr. Barton Powell reported on the Eye, Ear, Nose and Throat section.

Four physicians who had returned from the service were present and were called upon for talks. Dr. W. F. Priestly stated that he had spent but a short time in the service, but during that time had seen and heard much in the way of methods and procedures that would be of practical use in the future. Dr. N. E. Williamson gave quite an interesting detailed report on the methods followed by various cantonnments in the handling of contagious diseases, particularly the method of handling large numbers of soldiers in threatened typhoid epidemics. The doctor also gave a very interesting talk on the so-called sleeping sickness and answered many questions regarding the pathology of this particular disease. Dr. F. J. Conzelman gave a very good talk on the methods used by the govern-

ment in weeding out the mentally defective. He stated that the routine examination given was such that it made it difficult for the malingering to get by. Dr. Dozier stated that although he had not been abroad, he considered himself very fortunate in having been appointed to the orthopedic department of the Letterman General Hospital.

Dr. Arthur is to report at the next meeting upon the vice conditions and control of venereal diseases in this city.

SANTA BARBARA COUNTY.

This pleasant old town plumes itself. It likes to believe what the State Journal says of the Forty-eighth Annual Meeting. And Santa Barbara would have you gentlemen of the state to know that over the town some fine things are being said about the convention and the men who came. Not all of us heard all the papers, nor met all the visitors. But we were there; and largely busy. Busy with installing stereopticons, with herding electricians, with driving personally conducted excursions; and most of us met some classmates, who oddly enough looked like middle-aged men, while we were still boys. We think, having been, that one might get the habit of attending the conventions. Indeed, editorially, we think we shall go ourselves next year and take our wife.

Santa Barbara Society has thirty-two members. Of these, five are in Santa Maria, one in Guadalupe, one in Lompoc, one in Carpinteria, and twenty-four in Santa Barbara. All our army men save Dr. D. A. Conrad, now at the Presidio, are again at home. It is not unlikely that Dr. Conrad will remain in the army service. He says he likes the collections.

Dr. Benjamin Bakewell has established an Obstetrical Clinic at the Cottage Hospital. In the new obstetrical ward sixteen beds are available for the exclusive purpose.

Dr. Purdy, recently of the G. U. teaching staff at Marquette Medical, Milwaukee, is among us on an indefinite vacation.

Santa Barbara needs no longer send any patient away for diagnostic study. Heretofore we had no sufficient roentgen equipment. Within the month the Cottage Hospital has put in the highest standard of fluoroscopic and X-ray machines, and has employed an exclusive X-ray worker.

The year's officers are: President, Dr. William H. Flint; Vice President, Dr. H. C. Bagby; First Vice President at Large, Dr. W. T. Lucas, Santa Maria; Second Vice President at Large, Dr. J. C. Cummings, Carpinteria; Secretary-Treasurer, Dr. Robert Hartwell.

The annual venereal disease rate in the Navy during the eight years previous to the war, was, without appreciable variation, as follows:

Syphilis	42.97 per 1,000
Gonorrhea	90.26 per 1,000
Chancroid	33.31 per 1,000

Total

During the fiscal year July 1, 1917, to July 1, 1918, the period during which educational and preventive measures were introduced into Naval training camps, methods practically parallel to those adopted in Army camps, and developed through the Navy Department's Commission on Training Camp Activities, the rates were decreased by 60.75 per cent. In figures the rate for this year is as follows:

Syphilis	12.28 per 1,000
Gonorrhea	69.39 per 1,000
Chancroid	24.10 per 1,000

Total

Furthermore, according to latest reports, this rate still continues to decrease, reaching in August, 1918, an average of 80.34. The annual rate is obtained in the following way: The figure representing the total original admissions to the sick list during the week is multiplied by 1000 and divided by the complement of men. The quotient is then multiplied by 52.

Los Angeles County Influenza Recommendations

In a report to the Supervisors of Los Angeles County on the general aspects and control of the influenza epidemic in that county, Dr. J. L. Pomeroy, Health Officer of that county, makes the following recommendations, which may well prove of value in other counties:

1. The experience of the epidemic demonstrates the need for closer co-operation between the various municipal departments of the smaller cities and of the county. Where such co-operation can be effected, a marked improvement in local conditions occurs.

2. Owing to the fact that authorities in the United States predict a recurrence of influenza during the next winter, it is highly important that our administrative and executive arrangements be perfected before that time. To this end I strongly recommend the formation of a committee representing the county and each city in the county under 10,000 population, for perfection of plans against influenza.

3. I recommend the adoption of some plan to maintain a reserve list of physicians and nurses throughout the county who would be willing to accept special service with the Health Department during times of epidemic.

4. I further recommend the passage of an ordinance requiring the principal of each county school to file a weekly report with the County Health Officer of all absentees and other facts relating to school attendance, on forms provided for this purpose by the Health Officer.

Notices

FIT TO FLY.

The moving picture film "Fit to Fly" is at the disposal of any county society which wishes to show it, and can be had by applying to Dr. Charles G. Stivers, 1115 Arapahoe street, Los Angeles.

ORIFICIAL SURGEONS.

The 32d Annual Convention of the American Association of Orifical Surgeons will be held at the Congress Hotel, Chicago, September 15, 16 and 17, 1919. Forenoons will be given to operative demonstrations at the hospital.

The program will be replete with practical addresses, essays and papers by prominent orificalists. The clinics will be interesting, as usual.

STANFORD UNIVERSITY SUMMER QUARTER.

Stanford University since 1917 has divided its year into four quarters of about eleven weeks each. In 1919 the summer quarter will open Tuesday, June 17, and close Saturday, August 30. It is divided into halves, either of which may be taken alone; the second will begin Thursday, July 24. Work may be done and credit received toward the degrees of A. B., A. M., Ph. D., M. D., LL. B., J. D., and toward engineering degrees. Courses are offered in the regular academic and scientific branches, and in medicine, law, and physical education. The advanced and clinical work in medicine is carried on in San Francisco, and that in marine biology at the Hopkins Marine Station near Monterey. Instruction will be by the regular university faculty, with the assistance of certain visiting professors from other universities. The summer quarter is not a summer-school, but is an integral part of the university year.

League for Conservation of Public Health

LUNCHEON AT HOTEL BELVEDERE,
SANTA BARBARA, APRIL 16, 1919.

INTRODUCTORY ADDRESS.

JOHN H. GRAVES, M.D.,
President of the League for the Conservation of Public Health.

The medical profession in this era of social and industrial reconstruction has the opportunity to render unequalled service.

The Health question is not an academic question. The Health problems that all factors of society are now discussing are practical questions that involve the development of the race and the security of the nation.

The State's greatest and most essential resource is the health of the people, and the time is now most opportune to develop this resource. The returning soldiers have learned in camp to appreciate and place a higher value upon health; they have learned a respect for sanitation; they now understand the necessity for community co-operation in health matters.

It will be easier, therefore, from now on to appeal to any community on preventive health measures, as the returning soldiers will be a nucleus around which will gather a healthier public sentiment.

Health problem are permanent problems and a League to help solve them must be likewise.

In a recent Bulletin of the American College of Surgeons this point is strikingly stated. "Year after year," the Bulletin says, "the American Medical Association used to have a Committee on Education bring in a very excellent report. On the whole, the men on that committee were splendid representatives of medical education, and the reports were excellent. But after these reports were read and published, nothing was done for another 365 days or until another committee brought in another report. The result was that from year to year little or nothing was accomplished."

"To produce results you have got to have an organization that will work every day of the 365 days in the year."

This League is a 365 day organization. And not only every day, but many nights have been fruitfully devoted to valuable conference work.

The League is a medical mobilization—a scientific standing army that will endeavor to meet and defeat the invisible foes of disease by putting the principles of preventive medicine and surgery into practical effect. Members of the League are sometimes asked by those who do not belong to it, if this organization is not largely interested in exerting political influence. This impression has probably been created by the fact that the League was forced to engage in several political contests in which the interests of the public and the rights of the profession were menaced.

The fact that we have won all of these contests is not a source of regret to the public or the profession.

Ninety-nine per cent. of the representative medical profession urged us to do what we have done and the one per cent., together with the ninety-nine per cent., share in the benefits of our work. Not all of the ninety-nine per cent. contributed to the results we achieved, either financially or otherwise. Some confined their efforts to lending us their moral support.

Moral influence is a most commendable commodity, but it will not pay for telegrams, telephones, literature and the operations of the machinery that produce results. We believe that all that can should contribute to the League for we are working for the benefit of all.

And right here let me announce publicly, for the League has no secrets, that the printed objects which you have before you, these ostensible ob-

jects of the League, are its real objects and its only objects.

We have no hidden purposes or private objects or personal aims. The more our profession and the public know about our objects and the way we are carrying them out, the better for all concerned. Our experience has been that interest and co-operation have increased in proportion to the knowledge the people gain of the real League.

Being deeply in earnest and devoted to the maintenance and furtherance of these objects we must necessarily defend these vital principles from attack, whether the attack comes through political channels or from other quarters. Being devoted to the fulfillment of these objects we must advocate constructive legislation and oppose destructive legislation.

To do less would be to fail in our civic duty and shirk our professional responsibility. A man who will not defend what he claims to believe forfeits his right to his claim. A man who belongs to a profession who will not uphold the standards of his profession should lower his colors and cease to profess.

Theodore Roosevelt expressed this idea strongly, just a brief time before his death: "Every man," said this great typical American, "owes some of his time to the upbuilding of the profession to which he belongs."

It is the aim of the League to enable every representative member of our profession to do his and her share for the upbuilding of the profession for the common good. If you will read our objects carefully you will find them in complete harmony with the best aspirations of our profession.

Our Constitution is broad enough and big enough and lofty enough for all. In fact, we have been asked, why did you undertake so much?

Because it is impossible to conduct a campaign against any one particular disease without discussing environment and sanitation—and a comprehensive discussion of the subjects touches or opens up the whole field of preventive medicine.

We must investigate and diagnose public health problems as carefully and conscientiously as we diagnose the health problems of our private patients. Surely the collective wisdom of the profession, as represented in the League, is equal to this task.

Whenever we encounter a problem for which we cannot suggest the solution, we shall consult the best medical, scientific talent for that particular problem.

If the one that possesses the information that we need does not happen to be a member of our League, or even a resident of California, we shall endeavor to secure his or her services nevertheless. You see, therefore, ladies and gentlemen, that the least part of our work is concerned with repulsing attacks and that our big permanent work is in proposing and leading in essential constructive measures.

The League has been offered many opportunities to make mistakes. That the offers have been regularly declined, and that all the publicity and literature that the League is responsible for has in no single instance violated the canons of propriety or the high ethics of our profession is a source of congratulation and deep gratification.

That the League's actions have been so uniformly consistent, judicious and effective is due to the policy we have rigidly followed of acting only after mature deliberation and consultation.

The Executive Committee before reaching any important conclusion endeavors to secure the best obtainable information and advice. In this connection we are deeply indebted to the Publicity Bureau of the Medical Society of the State of California, to the State Journal and to Dr. Saxton T. Pope and his efficient office staff in the Medical Society headquarters. All the officers of the League have been most ably aided by the tireless

energy and loyal work of our Counsel, Mr. Hartley F. Peart, and our Executive Secretary, Mr. Celestine J. Sullivan.

It is obvious that the League, like any effective organization that seriously reflects the opinion of a group, must first find out by consultation what the real opinion is and then express that opinion clearly through one official channel. A variety of individual opinions, loosely expressed, are ineffective and serve only to confuse and divide those to and by whom they are expressed. It was this consideration that led to the decision of December 18, to annul the temporary county units, or so-called branches of the League, and place responsibility in one central body, and thereby insure united and uniform action. Those on whom this responsibility rests are vigilant, and we are conscientiously and actively striving to do constructive work for the promotion and protection of the public and the best interests of the medical profession.

Special thought has been given to timely publicity and to collecting material along industrial, sociological and public health lines. A visit to the League's headquarters will be informative. Any one who is interested in the health tendencies of the times, in catching the manners living as they rise and shooting folly as it flies in preventive medicine and hygiene, in hospital standardization, in industrial hygiene, medicine and surgery, in encouraging health improvement and conservation, will recognize and welcome the League not only as a great step but a great movement in the right direction. "We have sounded the trumpet that shall never call retreat."

In studying the League's objects you will undoubtedly feel that they are too big for complete fulfillment by one generation. That is true, for health work must continue until the last crystal drop of the river of time empties into the ocean of eternity.

By inverting the old order and trying to substitute a pound of prevention for every ounce of cure, we undoubtedly will lengthen the life of this generation and make posterity our debtor.

We are urged at frequent intervals to undertake or indorse a variety of enterprises. Most of these enterprises are worthy, but being foreign to our special work cannot properly claim our attention. Whilst we are flattered by these requests and offers, we realize that organizations that go outside their proper sphere always meet the fate of trespassers.

Some organizations, like some men, resemble Nick Bottom in *Midsummer Night's Dream*. They want to play all the parts.

Organizations to be successful must develop real interest among their membership along definite lines and not attempt to cover all the different human activities. Enthusiasm in a subject without information often leads to reckless results. So many organizations are engaging in health work that if their information was equal to their interest we might reasonably expect substantial results. One of the popular methods of these organizations is to announce an elaborate program of health work, secure wide publicity on mere proposals and then quietly call upon the Doctors to vitalize it.

The League will stay within its proper province and confine its efforts to promoting these objects. Our guiding policy is measures not men, principles not persons, candid aims not candidates.

As a profession we possess certain knowledge which will be of great benefit to the public if the people followed our direction and co-operated with us in solving health problems. We owe it to the people to direct them properly publicly as well as privately.

The League is dedicated to serving the public by conserving the public health and recognizes and will meet the civic responsibility that rests upon our profession.

SANTA BARBARA MEETING.

HEALTH LAWS AND THE RIGHTS OF THE PEOPLE.

MR. HARTLEY F. PEART,

Counsel League for the Conservation of Public Health.

The duty of a State to protect the life and health of its citizens is a fundamental principle of government. It is not only a fundamental principle, it is the supreme principle of government. *Salus populi suprema est lex*, the health or welfare of the people is the supreme law.

Since society was first organized the purpose of adopting Health Laws—like other laws—has been for the preservation of society's own interests. In this complicated life of ours the most important laws concern the protection of life itself.

Self-preservation being the first law of nature has become the first law of government.

It is the nature of law to define limits. Nature has made rigid health laws and punishes severely—sometimes with speedy death—a fatal violation of her laws.

Laws to be effective must be obeyed. Every State as a necessary consequence of its duty to protect the health of its citizens has the right to determine and enforce health laws deemed most conducive to the promotion of the public good.

In a Republic like ours, where majority rules, no individual has a right to demand that an exception and exemption be made in his favor, where such exemption and exception render void and endanger the lives of the majority.

Our inalienable rights to pursue life, liberty and happiness are all vitally involved in our rights to health protection, and no one who believes in majority rule—the rule upon which democracy is based—can contemplate without deep solicitude and concern the open defiance and violation of health laws upon one private pretext or another.

The health of the people and the causation and prevention of disease must be dealt with as a whole and the State must compel compliance with its laws. And here we find the reason for proposing only laws definitely designed for the common good and opposing laws that are indefinite or intended only for special interests.

An indefinite legislative measure should be opposed on general principles, as it manifestly indicates that the proponent has no clear conception of its purpose, or wishes to hide and befog the issue. Any measure that cannot be explained clearly is clearly of a questionable character and contains the seeds of future controversy.

Greater care should be exercised in the framing, passing and enforcing of Health Laws than with any other laws, for Health Laws always involve the fundamental rights of every citizen. There are no functions of government for which we are all taxed that confer such essential benefits so uniformly on all, as those departments that are devoted to guarding against the invasion of disease from alien shores or from the germ kingdom.

The State safeguards the health of its people through modern sanitary machinery, sewers, disposition of waste and garbage, inspection of fish and oyster supply, and all meat products—by sound laws—well enforced—for the maintenance of cleanliness in and about the private and public premises.

The old saying that Cleanliness is next to Godliness does not induce many people to get "next," unless urged by an effective Health Department well backed by public opinion. You all recall the many serious violations of the pure food laws and the fatal results of food adulteration.

When the pure food law was being discussed in Congress, Representatives Stanley of Kentucky showed his fellow members of the House how some of the drinks of that day were manufactured. Holding up a concoction which he had prepared before their eyes, he remarked that it would make a howling dervish out of a monk, and make a

rabbit spit in a bulldog's face. Devoted members of the medical profession through long days and nights of research work, have detected and prevented food adulteration that has saved and is saving the lives of millions.

I can find no evidence that any of the various cults and critics of the medical profession has ever attempted, much less won, a campaign for the benefit of their fellow men—not even against a fly or mosquito. They are so busy insisting on their rights that they have no time for duty. There is no right without a corresponding duty. Rights and duties must be reciprocal.

If a person resents invasion of certain rights, he is bound by that very principle to respect the rights of others. And a minority cannot consistently claim minor rights that trespass on the major rights of the majority.

The individual who is in the minority class, and particularly if he has an eccentric belief, is prone to insist that his rights are more sacred than the rights of all the world combined. When a few fanatical individuals are organized and determined to follow their beliefs at all hazards they are often able to trespass on the rights of a vast majority. When this obsession touches health, it not only endangers the life of the few but of all the majority.

Health used to be considered a matter for individual decision and concern. But today we know that health is a community and not an individual problem.

The knowledge of communicable diseases and the realization that disease prevention depends upon community co-operation has increased the interest of all in the health of all.

Disease prevention is a community problem of far greater importance than fire prevention. The value and necessity of fire prevention has long been recognized. But despite fire proof buildings, faster and more modern equipment fires still occur, and sometimes great conflagrations.

A little spark and the fire starts and spreads. O'Leary's cow kicked over Chicago and did irreparable damage.

And there are some that are as careless as O'Leary's cow. The fact that the cow did not fully appreciate the danger or damage of her own act did not reduce that danger or damage that resulted from that careless kick.

People of a superstitious trend of mind used to believe in spells and witchcraft and hoodoos. But now we know that "no fairy tales nor witch bath power to charm"—although some still believe that malicious animal magnetism wields evil power but at the same time calmly assert that they cannot distribute germs because they do not believe in them. Denying the existence of tuberculosis and typhoid, with an upward toss of the head, is no more effective in preventing these dangerous diseases than the method employed by the ostrich, which with equal assurance buries its fatuous head but leaves vulnerable parts of its anatomy exposed to pursuing danger.

If the action of the few, who do not believe in communicable diseases, and who, therefore, not only do not observe but oppose necessary health measures, only suspended the sword of Damocles above their own heads it would not give the community such profound concern. But the few menace the lives of the many besides their own.

I am informed by medical science that a very large amount of preventive diseases are traceable to two sources—water supply and milk supply.

Pasteurization means nothing to those who believe that germs are fictitious creatures that are cultured in the fertile imaginations of the M.D.'s. The rights of the people demand, however, that the men who inspect our milk supply shall do it scientifically and this can only be done by those who have a technical knowledge of bacteria to enable them to make proper tests and insure the public a wholesome supply of milk.

The necessity of a scientific analysis of water supply is no less essential. Scientific processes have saved and are saving tens of thousands by guarding the water and milk and keeping foods as pure as possible.

Without strong, well-organized, well-supported and equipped competent Boards of Health—health protection is merely an idle phrase.

The necessity of efficient county health units co-operating with the physicians and with the State Board of Health was strikingly illustrated during the recent epidemic. A health department inadequately equipped can no more fight disease successfully than an improperly equipped fire department can fight fire.

Health officers are poorly paid and health departments of many of our cities are inadequately financed. As the very foundation and safety of our State depends upon the vitality of the people we should encourage larger appropriations for the advancement of health, for psychopathic hospitals, physical culture in the schools, child hygiene, etc.

Health made our fighters fit to fight and win a world's victory, and health will make us fit to fight and win the victories of Peace "no less renowned than war."

The most encouraging sign of this time of unrest that points the way to better days is the growing interest in health matters. Public spirited citizens are organizing health centers, clubs are appointing health departments and seriously discussing health problems, and the net result will be giving health its proper place—the place of highest importance in the financial, industrial, business and social scale.

The presence of our friend, Judge W. A. Beasley, the president of the California State Conference of Social Agencies, is a splendid exhibition of public spirited citizenship. Judge Beasley will preside over a gathering next week at San Jose of prominent men and women who are devoted to the public welfare. From their deliberations and discussions on such subjects as "Community Health," "The Public Health Nurse of the Future," "The Practical Value of Mental Examinations," "Reconstruction Labor Problems," "The Problem of Physical Education and Recreation in the State," and Child Welfare, etc., not only those who have the privilege of attending that State Conference of Social Agencies will receive benefit but all the communities to which they return will receive new inspiration along the very lines which our League for the Conservation of Public Health is unselfishly working. And I know that the Judge will have a new devotion enkindled by this meeting here today and realize that the medical profession of California, whose members are the indispensable factors in all social work—are fulfilling their noble mission as health leaders in a noble way.

I have heard it said during this baby welfare campaign that more attention was given to raising hogs than to raising children.

I am inclined to believe that the statement is grossly exaggerated and that the interest in pigs is not a hoggish interest uncomplimentary to children, but primarily intended to furnish better spare ribs, better ham and bacon and better pork chops for the children and their elders.

Any violation of health laws by parents that would impair the health of their children is an assault upon the children's rights before and after they come into the world. As the future of the race rests upon the protecting of the rights of children they deserve the highest consideration.

The examination of school children to ascertain how many are suffering from incipient disease, defective teeth, diseased tonsils, defect of vision, hearing, adenoids, etc., is a duty that we owe the children, but those responsible for the health of the community are sometimes embarrassed in fulfilling this plain duty by those who believe that such obvious things as sore eyes, diphtheria,

measles, scarlet fever, etc., do not exist, but if they do exist that scientific medicine is not the proper procedure. Which reminds of the man who was charged with stealing a sheep. He offered two defenses. One, that his accuser had no sheep to steal and the other that even if he did take the sheep, the sheep was not worth nearly as much as the owner claimed.

The prevention of disease is dependent upon the observance of essential health laws by everybody, and it is only through an awakened and enlightened and united public sentiment that essential health laws can be enforced.

It is in this regard that the value of the work that Judge Beasley is doing is best exemplified.

Even a few violations of preventive measures neutralize them and serve as handicaps to delay and curtail results.

Take the anti-spitting ordinance as an offensive example. The majority observe it. But the few void their rheum wherever and whenever they have the inclination. As a result disease is spread.

The public expectorator not only violates city ordinances and canons of good manners and morals, but in casting forth his germs he is opening a Pandora box releasing all its ills.

This is plainly a serious violation of the rights of others.

And when we are inclined to question or condemn certain preventive measures as ineffectual or only tolerably successful, we should also consider this fact that we can only judge them fairly by finding out how strictly they are enforced and are observed.

My observation has been that those who resist preventive measures most observe them least, and we know that the effect of preventive measures may be wholly nullified by a few non-conformists.

Preventive measures of the soundest scientific value are often honored in the breach and not in the observance—and such breaches often defeat the very purpose of the best measures. Science is as powerless to cope with those who will not observe as the Creator of the world was with those who would not serve. He told them where to go and sent them thither. We can only tell them and give them general directions.

I am sure that the thought has often occurred to all of you of how powerless you are unless the people co-operate and how essential in each case is the co-operation of your patients and those that surround them. All the potent preventive measures that you or the combined medical profession may suggest depend not only upon the co-operation of the majority but upon the co-operation of all.

The greatest test and the greatest triumph of preventive measures occurred in army camps.

Why were preventive measures so successful in the army camps, forming such a splendid contrast to our cities?

Because all were obliged to observe strictly the rules that were made for the common good. No one was allowed to violate with impunity the health laws set down for the protection of all. The individual beliefs or opinions about proper sanitary measures, modes of prophylaxis or variety of therapeutics did not justify or permit anyone in violating or opposing the majority plan.

If the modern Health Department is ever to realize its full destiny and efficiency it will be when it has the hearty co-operation of all the agencies in city and country alike, and to bring these agencies into harmonious effort is the great purpose of this League.

The modern Health Department cannot tolerate a Diogenes living in a dirty tub, preaching strange doctrines and occasionally sallying forth at noonday with a lantern modestly seeking an honest man.

The Diogenes of today menaces the life of his neighbors, because he may start a pestilence from his tub. If he would just clean house, put out

his dim lantern and look at his fellow men and the plain facts in the light of the noonday sun, he would recognize that the small circumference of his tub had circumscribed his comprehension and the smoky lantern had obscured his vision.

As the duties and rights of every individual in every community are so interrelated and interdependent, it is obvious that all must comply and co-operate with wise Health Laws to make them effective for the protection of all.

Man himself is the chief source from which diseases are spread. All hygienic laws that leave the individual to do as he pleases in vital matters are futile.

Department of Pharmacy and Chemistry

Edited by FELIX LENGFELD, Ph. D.

Help the propaganda for reform by prescribing official preparations. The committees of the U. S. P. and N. F. are chosen from the very best therapeutists, pharmacologists, pharmacognosists and pharmacists. The formulae are carefully worked out and the products tested in scientifically equipped laboratories under the very best conditions. Is it not plausible to assume that these preparations are, at least, as good as those evolved with far inferior facilities by the mercenary nostrum maker who claims all the law will allow?

Many physicians who have sent to the Collector of Internal Revenue \$1.00 in payment of re-registration from January to July, under the new Revenue Act, will be surprised to have this dollar returned with the request that they forward \$1.50. The new license fee for a physician is \$3 a year or \$1.50 for the half year, and it was assumed that the 50 cents already paid on the old license would be credited to the new. However, the Treasury Department has decided not to do this but to demand the full fee for the period mentioned without regard to any previous fee paid.

The United States Supreme Court, five to four, has sustained the constitutionality of the Harrison Anti-narcotic Act in so far as it relates to criminal prosecution of registered persons for violation of the Act. Many constitutional lawyers had thought that the Supreme Court would consider the Harrison Act a police measure masquerading as a revenue bill and, therefore, an infringement on the constitutional rights of the individual States. The Supreme Court, however, held that Congress has the right to pass any revenue measure it pleases and to make such regulations as it sees fit, it being assumed that these regulations are made for the purpose of preventing fraud upon the revenue. It was held that the Court has no right to question the ulterior motives of Congress but must assume that the measure is a revenue measure, pure and simple.

The court specifically decided that a registered physician is not privileged to give away or sell 500-1/6 grain heroin tablets except to a registered person upon the presentation of a requisition properly signed. It also held that a licensed physician is not privileged to give or sell an addict a like quantity of narcotic for the purpose of preventing bodily discomfort and satisfying the craving. It likewise held that a physician is not privileged to write a prescription containing a narcotic for an addict in order to satisfy the craving of such addict unless the addict be a bona fide patient taking a bona fide cure, and such a prescription cannot be filled by a pharmacist, and if a pharmacist knows that such a prescription is given for the purpose of satisfying the craving and fills that prescription, the physician and he are guilty of conspiracy. In any case, the physician writing such a prescription is liable to criminal prosecution. It has been not uncommon for an addict to request a physician to undertake a cure and to ask that the physician provide him with a small quantity of narcotic while he is being prepared. According to this decision the physician is liable to criminal prosecution if he does this. He must see that the patient begins

the cure at once and he must see that it is a bona fide cure.

The Hygienic Laboratory, Federal Public Health Service, has investigated a number of complaints regarding the toxicity of American Arsphenamine (Salvarsan 606). It was found toxicity in practically every case reported was due to the use of a solution too concentrated or given in too short a time. At least 30 cc. of solution should be allowed for each 1/10 gram Arsphenamine and at least two minutes for the intravenous injection of each 30 cc. This means for the full does of 6/10 grams at least 180 cc. of solution and twelve minutes for its administration. There is no objection to making the solution somewhat more dilute and taking a slightly longer time to give it.

Conference on Hospital Standardization

Century Club, San Francisco, April 7, 1919.)

ADDRESS BY FATHER MOULINIER.

In a forceful and convincing address, Charles B. Moulinier, S. J., called attention to the inescapable duties of the medical profession and the public, in making possible a "hundred per cent. of modern medicine" for every patient who enters a hospital. He pointed out that this movement for elevating the standards of hospitals is equal in importance to that which has raised the standards of medical education in this country. The interests of the public can be safeguarded only by improving medical education and by bringing hospital organization to a high degree of efficiency. Every link in the chain of modern hospital organization must be strengthened, the system of records, the hospital staff and the clinical laboratory. Only in this way can the patient receive a "hundred per cent. of modern medicine."

In the achievement of this laudable purpose, the public must help. The patient who is unable to pay for the most thorough medical examination and treatment is nevertheless entitled to such service. It, therefore, becomes the duty of the public to aid in the maintenance of the hospital which serves them.

ADDRESS BY DR. BOWMAN.

Dr. J. G. Bowman, Director of the American College of Surgeons, spoke on Hospital Standardization as it is understood and meant by the College. He pointed out the existence, here and there, of hospitals which had no laboratory nor roentgen service, no system of records, still less an adequate one, and no check of any kind on the work that was done. In such a hospital a practitioner without conscience or professional morals could easily take advantage of his patients, and he instanced one hospital in which a large number of uterine curettings were done, with no laboratory examination of the curettings.

A survey of such hospitals, done in a spirit of helpfulness, so that the faults may be undone and then corrected, would be a notable public service. It would make such hospitals come up to standard, so that patients going there could count on a minimal residence with maximal results. A proper set of records would show this, and such a hospital would be able to compete with the best for public approval and support. A working man to whom time and the permanence of result count perhaps most, could go to such a hospital confident that a hernia operation, for instance, would heal without infection and that the result would have the best expectancy for permanence, etc.

Dr. Bowman urged particularly the responsibility of the directors, who presented the hospital to the public, for the character of the men and work of the place, and begged that this should be frankly

recognized, so that they could offer the hospital facilities for sale to the public, just as the surgeons offered their services for such sale, and that the public in buying should be morally and really assured of receiving the full value of their money.

"RELATION OF THE HOSPITAL TO THE PATIENT."

ADDRESS BY DR. JOHN GALLWEY,
San Francisco.

(Before American College of Surgeons Hospital Standardization Conference, San Francisco, April 7, 1919.)

The relation of the hospital to the patient, like all human relations, depends upon conditions and circumstances. In normal times, in a metropolis like San Francisco, the patient who enters any of our leading hospitals has a right to expect and receive careful diagnosis, as accurate as modern medical science can make. Following diagnosis the patient is entitled to the best scientific service of the medical and surgical department, pathologic department, laboratory department, nursing department, etc.

The small hospital in the small community can not be expected to give the service or have the equipment or facilities that the metropolitan institution has, but in the fundamentals that constitute safety and care, it should be prepared to give better treatment than is available in the homes of its community.

As a social institution the hospital fills a unique place. The hospital is the host and home for sick guests. A host who would be inattentive to guests enjoying robust health would commit a serious breach of hospitality. If the host neglects a sick guest it is unpardonable. The hospitality of the hospital must be unflinching.

When a hospital receives a patient it is charged with a definite responsibility to surround that patient with devoted and efficient service.

The doctor, the nurse, the superintendent, the entire staff and every available resource must be used to serve the patient. The hospital takes the place of tender mother, solicitous father, sympathetic sister and kind brother. It embraces all the relations.

The reason that the patient leaves home and comes to the hospital is to receive better care than the home can give. More complex than the life of the biggest home is the life of the hospital. And as in the home the particular needs of all are consulted and those who need most receive most so in the hospital.

A theoretical hospital, like a theoretical home, is easily standardized according to theoretical standards, but all the scientific tests that may be invented and applied must be measured by one supreme test—the patient's welfare.

A hospital that is built with any other intention than the good of the patients vitiates the primary purpose of a hospital and starts on the road to failure the day it begins.

No matter how high its standards may be on paper, no matter how up-to-date its laboratories, surgeries, sanitary and sterilization systems, no matter how imposing and beautiful its architecture, no matter how perfect the scientific equipment of the physical plant may be, no matter how expert the methods of economy and management, or how well coordinated its various departments have become through the high administrative ability of the Board combined with executive ability of the Superintendent, no matter how fine the technique or proficient and profound the learning of the medical and surgical staff may be, unless all of these activities are intended, directed and dedicated to the benefit of the patient and the service of the community—they are mere tinkling cymbals.

Unless high standards are accompanied by low

mortality they signify nothing. The relative importance of any form of hospital work is the relation it bears to the patient.

Superior buildings and inferior treatment are as anomalous as the showy homes that are built to attract the admiration of strangers and not intended for the comfort, pleasure and welfare of the families that dwell therein. As the welfare of the patient is the purpose for which hospitals were created and exist, it is obvious that anybody or anything connected with a hospital that does not contribute to or would jeopardize the interests of the patient should be eliminated.

Hospital life must be as free from friction as possible, and no discordant note must disturb the patient. The patient is naturally impatient and the relatives are sensitive. The hospital has a most difficult problem to satisfy both and still render the scientific service that mistaken kindness would invalidate. The kind heart without the wise head is dangerous around the sick bed. The milk of human kindness must be pasteurized, and solicitude must be scientifically systematized.

The patient has a right not only to an atmosphere that is chemically pure but that is full of cheer to buoy up sinking spirits.

Less than fifteen per cent. of those who are under doctor's care are treated in hospitals. No one knows as well as the doctor what a handicap home treatment imposes. No one is more anxious for more hospitals and better hospitals than the doctor.

The affiliation between physicians and surgeons and the hospital cannot be too close, for no one can be more intelligently and intimately interested in improving hospital service than the physicians and surgeons who are dependent upon good hospital facilities and co-operation for the care of their patients.

The improvement of hospital work rests largely with the medical profession, and here in California, through the League for the Conservation of Public Health, the profession has undertaken hospital standardization in a most practical way on a broad, constructive basis. The League's program of standardization is based upon the soundest judgment and will be developed from the combined experience of our physicians and surgeons and practical hospital men and women of high ideals. The activities of the Hospital Section of the League will embrace all that may properly come within the scope of hospital work in its relation to the public, the patient and the physician, and all these varied relations and the practical problems they create, must be viewed in the light of facts, circumstances and conditions if we are to reach practical conclusions.

In measuring the success of a hospital surplus signifies the restoration of many to health and usefulness. What is best for the patient is best for the hospital.

A hospital that lacks an abiding conscientious interest in its patients individually and collectively has a fatal defect.

In the relation of the hospital to the patient we should find the best exemplification of the golden rule. The golden rule is the guiding principle of the true hospital. Treat your patients as you would wish to be treated if you were a patient.

Memorial Laboratory Dedication

On April 14, 1919, just preceding the annual meeting of the California State Medical Society at Santa Barbara, occurred the dedication exercises of the Memorial Laboratory and Clinic, established in a new wing of the Cottage Hospital of Santa Barbara by Dr. Nathaniel Bowditch Potter.

Mr. Chatfield Taylor, who fitted out for the new

building a modern Heart Room equipped with the latest type of Electrocardiograph and other instruments of precision, introduced the speakers and said in part:

"We are here, as I think you know, to inaugurate the new wing of the Cottage Hospital, which has been dedicated through the generosity of Mr. Billings, Mr. Knapp and Mr. Peabody to the uses of the Memorial Laboratory and Clinic, for the study and treatment of nephritis, gout and diabetes.

"I merely want to say that the building which is being dedicated today was inspired by Dr. Nathaniel Bowditch Potter, and is a monument to him. An ill man himself, he has worked early and late, tirelessly and enthusiastically, for the cause of humanity, under conditions which other men would have failed completely to compass. In fact, I believe it is possible to epitomize such words as represent the finest qualities of the human heart—integrity, courage, zeal and devotion—in that single word 'Potter.'"

Among the speakers was Dr. H. C. Moffitt of San Francisco. Dr. Moffitt said:

"Started in a very modest way to encourage research in chronic diseases on Blackwell's Island in New York, the Carnegie Foundation transplanted this institution here, realizing that true research lies in the quality of men, and that research can be transplanted safely from the shores of an eastern ocean to the shores of a western ocean, provided the man who does it moves here.

"It is an extremely happy omen in my mind that here the clinic and the research develop together. And it is a happy thing, if I might also say, that the problems of the investigator are to come primarily from the clinic. We are reminded in the work to be done here of the similar work that is being done in the hospital of the Rockefeller Foundation, in the hospital of the Johns Hopkins University, in the Massachusetts General Hospital, in the Peter Bent Brigham Hospital in Boston, in the Sprague Institute in Chicago, and in the Hooper Foundation of the University of California Medical School in San Francisco. The field here will naturally be somewhat limited. Problems of research in pure chemistry or pure physics will naturally be transplanted elsewhere. But in limiting the field, there is naturally likewise a tremendous advantage. It is a fortunate decision of the founders that the work in the clinic will be most intense in the study of chronic diseases; and it is a wise decision, above all, that the interest of the workers is to be with the man who is sick with the disease, rather than with the abstract disease itself. It was a relief to know that the benefits which come from a rightly run hospital and from wisely planned investigation are here to be limited to no one class of individuals. It is only through dealing with all kinds of people, with all sorts of varying factors in their habits, in their work and play, in their nutrition, in their hopes, ambitions and sorrows, that all-round clinicians can be developed and research problems of chronic disease properly appreciated.

"In the rapid development of medical teaching, we have drifted away from the clinic as the main source of enthusiasm and inspiration. We are developing groups of instructors instead of great teachers. We are developing so-called group medicine at the expense of the individuality and personality of the great clinicians and the great teachers of former times. You remember what Dr. Bull of New York was in surgery, and what Dr. Peabody of New York and Dr. Favill of Chicago were in medicine. We of the Pacific Coast love to remember that wise physician and friend of all the world, Dr. William Watt Kerr of San Francisco. Dr. Potter was speaking only today of the wonderful influence of such men as Sir William Osler, Dr. Fred Shattuck of Boston and Dr. Frank Billings of Chicago.

"What words have we, however, for a man who goes on fighting when he knows the odds are all

against him—yes, even when he knows they are hopeless odds? We doctors love the men of our profession who toil in the harness, when sick in body and when sick in heart. Courage, enthusiasm, strength of will, the spirit undaunted, love of his profession, love of mankind—these indeed are imperishable qualities to bring to your Foundation.

"Members of the Foundation, it is a great thing that in your director you have chosen a wise physician, but it is a greater thing that you have chosen a man."

The new building is being rapidly furnished and will be ready for occupancy within a fortnight. In addition to the Hydrotherapeutic establishment, the cardiac room and a very complete modern diet kitchen, the chemical, bio-chemical, bacteriologic and clinical pathological laboratories, each and all fully and modernly equipped, there are fourteen beds. Some of the ward beds have already been endowed, so that Dr. Potter is now able to offer to the deserving sick poor, suitably recommended by their physicians, who reside outside of Santa Barbara, free services and free accommodations as well.

NEW MEMBERS.

Phillips, Alfred, Santa Cruz.
Thompson, Harry D., San Francisco.
Sharpe, O. A., San Francisco.
McQuade, John, San Francisco.
Smith, Walter E., San Francisco.
Moore, Wm. Leander, San Francisco.
Sheldon, Daniel W., Perris, Cal.
Willis, H. L., Stockton.
Haight, L., Stockton.
Watson, H. A., Los Angeles.
Magee, A. Claude, Los Angeles.
Laton, George P., Los Angeles.
Turley, Frances C., Los Angeles.
Krebs, L. L., Pasadena.
Glenn, T. H., Los Angeles.
Shea, J. Russell, Los Angeles.
Edgerton, H. W., Pomona.
Bowman, Ross, Huntington Park.
Caseley, W. N., Long Beach.
Hall, John F., Alhambra.
Franklin, J. W., Los Angeles.

TRANSFERRED.

Thorner, Moses, from Los Angeles County to Santa Barbara.
Baird, Harry R., from Yuba County to Sacramento County.

DEATHS

Riehl, F. W. F., a graduate of Frederick William University of Prussia, 1867. Licensed in California in 1876. Died in Alameda, Calif., May 21, 1919.

Robinson, T. C., a graduate of Hahnemann Medical College, San Francisco, 1902. Licensed since 1902. Died in Long Beach, April 2, 1919.

Bishop, Herbert Martin, a graduate of Yale University, 1865. Licensed here in 1892. Died in Los Angeles, April 23, 1919.

Ellis, J. W., a graduate of the New York University, New York, 1884. Licensed in California 1884. Died in San Jose March 3, 1919.

Ford, James C., a graduate of Medical Department of University of Missouri, 1859. Licensed in California in 1888. Died in Santa Cruz, California, February 12, 1919.

Squire, W. W., a graduate of Hahnemann Medical College, Chicago, 1876. Licensed in California, 1900. Died in Tulare, Cal., May 17, 1919.

Sperry, Mary A., a graduate from Women's Medical College, Pennsylvania, 1890. Licensed in California, 1892. A member of the Medical Society of State of California, San Francisco Center of the California Civic League, The Business and Professional Women's Club and the Society of Women Physicians. Died in San Francisco, May 7, 1919.

California State Journal of Medicine

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Yolo.....Dr. Frances L. Newton, Woodland
Yuba-Sutter.....

Contributors, subscribers and readers will find important information on the sixteenth advertising page following the reading matter.

VOL. XVII

JULY, 1919

No. 7

SOUTHERN CALIFORNIA MEDICAL SOCIETY.

The sixtieth regular semi-annual meeting of the Southern California Medical Society, held in the Mission Inn at Riverside, May 14 and 15, was a banner meeting in attendance. The following program was successfully carried out and held the interest of the delegates until the last paper was read and discussed:

Wednesday, 2:00 P. M.

Neurological Complications and Sequelae in Epidemic Influenza.

Dr. Ross Moore, Los Angeles.

Pyelitis.

Dr. H. M. Voorhees, Los Angeles.

Further Observations on the Treatment of Deep Abdominal Lesions with the Roentgen Ray; Special Reference to Fibroid Tumors of the Uterus.

Dr. William B. Bowman, Los Angeles.

Wednesday, 8:00 P. M.

Etiology and Treatment of Uterine Prolapse.

Dr. J. Craig Neel, San Francisco.

Some Observations on Scurvy, Rickets and Syphilis in Children.

Dr. Hugh K. Berkley, Los Angeles.

The Treatment of Wounds, General and Facial, as Developed in France.

Lt.-Col. A. T. Bazin, D. S. O. C. A. M. C.,
Montreal, Quebec.

Thursday, 10:00 A. M.

Congenital Anomalies of the Ear.

Dr. Geo. B. Worthington, San Diego.

Focal Infection in Relation to the Eye.

Dr. C. E. Ide, San Diego.

Surgery of the Nasal Septum vs. Surgery of the Turbinates.

Dr. F. A. Burton, San Diego.

Double Empyema with Report of a Case.

Dr. C. Van Zwalenburg, Riverside.

In addition to the scientific discussions, Thursday afternoon, May 15, was devoted to a general discussion of the plans, purposes, policies and performances of the League for the Conservation of Public Health.

Papers were read by Dr. John H. Graves, Dr. C. D. McGettigan, Dr. Dudley A. Smith, Dr. James Franklin Smith, et al., and the League was heartily endorsed in addresses by Drs. W. T. McArthur, Walter V. Brem, Geo. H. Kress, E. E. Kelly, Harlan Shoemaker and John C. Yates.

Dr. Walter V. Brem won ringing applause of all the delegates when he stated: "The League for the Conservation of Public Health does not represent any particular section, group, department or clique of the ethical medical profession of California, but all sections, groups and departments in particular. It has no interests but the interests of the medical profession as a whole. We have been supine, afflicted by a great inertia and idly watched incompetents profiteer on the health of the public." Dr. Brem gave comparative statistics showing that the raids upon the Medical Practice Act were only the logical result of unopposed attacks of small bands that would prove fruitless against an organized and unified profession. "They call us the Medical Trust," said Dr. Brem, "and we should not shrink from the name or be untrue to the trust. Properly interpreted, it means that the people do

trust our profession. The greatest trust that one man reposes in another is when a patient places his life in the hands of his doctor. The life of the patients cannot be surrounded with too many safeguards, and we are unworthy of the trust which the people place in us if we do not build up our Medical Practice Act so that incompetents will be wholly eliminated."

Following the Riverside meeting the officers of the League from Northern California were given a luncheon in the Blue Room of the Los Angeles Athletic Club on May 16. Dr. Geo. H. Kress acted as toastmaster and with felicitous phrasing presented Drs. H. A. L. Ryfkogel, John H. Graves, W. T. McArthur, Granville MacGowan, W. W. Beckett, J. F. Cook and Mr. Celestine J. Sullivan. The spirit of the occasion was well expressed by Dr. McArthur, who assured the League visitors that the south, which had been solid against medical standards at Sacramento, was now solid for the League and never again would tolerate a solid delegation to misrepresent it. Dr. MacGowan referred to the League as a link between Capital and Labor, and the health work in which it was engaged as the best asset of both. Dr. Beckett emphasized the duty of all to support the League, as the constructive work it is doing is for the common good.

HOSPITAL EFFICIENCY.

What was the matter with the patient? Did they find it out beforehand? Did the patient get entirely well? If not, why not? Was it the fault of the doctor, the disease, or the patient? Can such failures be prevented in the future? Dr. E. A. Codman asked these questions in 1915. They are equally pertinent now. Try applying them to your own hospital, be it small or large. Try them on your own patients, too, whether in hospital or office. Be honest for a time and appraise the actual service rendered by the hospital with which you are connected, as measured by the end-result in the patient.

Any such appraisal demands, as a prerequisite, accurate case records. Case records, to be accurate, must present the data from which the questions above may be answered. Then an analysis of the causes of failure can be prepared and definite remedies sought, if they are remediable. Codman rightly stated that the most difficult step is to get the hospital staff to admit and record imperfect results in diagnosis and treatment.

Blind confidence in the physician is archaic. To-day he must show results, as an individual practitioner, and as a profession, if he is to succeed or even survive. The seniority system of promotion is just as fatal to professional advancement in medicine as it has proved itself in the army and navy. It is inefficient, unjust, undemocratic, and cannot be abolished too soon in hospital staffs. Results in diagnosis and treatment should alone be the criteria for judging professional excellence. These alone should determine promotion in clinical staff appointments, so that a position on such a staff would become a legitimate

advertisement that the incumbent was professionally proficient.

It is time to sweep out the debris of old systems which do not measure up to such a standard of hospital efficiency. It is time to remove the omnipotent dollar from its key position in many hospital organizations. If we believe these things, why not practice them? If there is any physician who disagrees with the points here made, these columns are open for his reply. The time has come in hospital organization as, for example, in the matter of fee-splitting, when we must practice what we preach, or quit. How does it strike *you*?

HEALTH LEAGUE OF NATIONS.

Probably no more important subsidiary proposition could be considered in the League of Nations than the establishment of an international agency devoted to the interests of public health. Without health all other international codes fail. Nothing so surely isolates a nation to-day as illness. Certainly health, in the broadest sense, is one of the most vital and statesmanlike departments which can be incorporated in the League of Nations.

Soper³ calls emphatic attention to the present wide distribution of pestilence in Europe. Cholera, typhus and plague are more than threatening. In addition, disease dangers in the Near East are lowering with menace to the world. The problem of disease dissemination by the demobilizing armies is not being met because it is so vast. One example of this is the fact that men are being returned to civil life after going through heavy epidemics of symptomatic dysentery of undetermined causation. Parallel to this, McAdam and Keelan,⁴ in an extensive investigation of amebiasis in troops in Mesopotamia, found that of 351 non-dysenteric patients in a general hospital, 13.6 per cent. had amebic cysts; of 595 men in a convalescent depot, 17.8 per cent. carried cysts. According to Dobell's "figure for correction," about 33½ per cent. of the troops serving in Mesopotamia are amebic cyst carriers. A review of the numerous diseases spread by human carriers, in the light of this suggestion as to dysenterics, shows the enormous importance of the health problems of demobilization.

Parenthetically, it is appropriate to remark that the precautions against syphilis, gonorrhea, and alcoholism, which were so advantageous in the period of mobilization, should not be relaxed, but should be scrupulously observed until every demobilized man has found a steady job. A further parenthetical observation is to the effect that those health precautions which proved so efficacious in the army and navy, instead of being relaxed, should be extended to the entire civil population.

Such are but a few of the problems which only an international body with adequate scientific authority can handle properly. As Soper observes, its functions should include not alone the prevention of epidemic disease, but also the prevention of less spectacular diseases. In Europe, the great problems include sanitation, tuberculosis, personal

³ N. Y. Med. Jour., May 24, 1919.

⁴ Ind. Jour. Med. Res., July, 1917.

cleanliness, educational propaganda, etc. These matters are pressing, they are international, and the world's best scientific skill should be available for each nation through the operation of such a health league. Its functions should be supervisory, advisory, co-ordinating and investigative. Its program should at first lie under three heads: (1) Survey of health conditions from international point of view, (2) Control of specific diseases of international importance, and (3) Standardization of health procedures.

Several boards and international organizations have appeared from time to time, seeking in some measure to meet this need. None have been effective or sufficiently authoritative. The International Sanitary Congress met in Paris in 1903 and drew up an agreement for the better management of plague, cholera and yellow fever. In 1907 this agreement was ratified, and there was established in Paris the Office International d'Hygiene Publique. Germany and Austria were never represented. This body is still functioning, but its scope and authority are limited.

The Red Cross is not suitable nor strong enough. Only a major department in the League of Nations can adequately meet the urgent need of to-day. Gradually people are learning that after all *health* is the great desideratum. On no other ground could international action be more disinterested and easier co-ordinated. No superior point of approach could be devised for working out a comity of nations. It might be that governments could best learn to agree and co-operate by an international health program first, which would iron out the difficulties of political and economic programs. Already the tentative draft of the League's constitution makes account of health matters as they affect industry. The suggestion seems timely that a major department of the League of Nations should embody an international health board.

LEAGUE ENDORSEMENT.

The members of the League for the Conservation of Public Health are deeply gratified over the many strong endorsements which their work is receiving. One worthy of special mention was unanimously given by the California State Homeopathic Society during its recent convention. The following resolution was introduced by Dr. C. B. Pinkham and unanimously carried:

WHEREAS, The League for the Conservation of Public Health has rendered and is rendering important service in promoting a wider and more accurate knowledge and adoption of preventive measures and is dedicated to the policy of putting the principles of preventive medicine and surgery into general practical effect; and

WHEREAS, A number of the members of the California State Homeopathic Medical Society are members of the League for the Conservation of Public Health; and

WHEREAS, Our Society is in active accord with the objects of the League; therefore be it

RESOLVED, That the California Homeopathic Medical Society in its 43rd annual session assembled in San Jose, May 14 to 17, 1919, sends greetings to the officers of the League for the Conservation of Public Health and assures them of our hearty approval and co-operation in promoting the objects of the League; and be it further

RESOLVED, That the California State Homeopathic Society sends assurance of its hearty support of all legislation in the furtherance of higher standards in medical education and the continuance of the rights of unlimited practice as now obtains.

FITTING FEET WITH FAULTLESS FOOTGEAR.

The Chinese woman with her bound foot excites the derision and pity of the self-complacent Occidental. The American woman with her ridiculous imitation of a horse's hoof excites the derision and contempt of the observant Oriental. Dame Fashion, however, brooks no criticism, so we are told, and neither reason nor health are concerned in her mandates. Yet the Dame must look to her own laurels or she will find herself outlawed by her quondam willing slaves; for the War Work Council of the Y. W. C. A. has started a campaign for fitting feet with faultless footgear.

As a result of examinations of various groups of girls in different occupations, made in an endeavor to promote health among women, the fact has been forcibly demonstrated that an overwhelming number of women are wearing shoes which, with narrow-pointed toes, inflexible shank, and in most cases high heels, pinch the foot, cause bad posture, and so incapacitate the wearer for freedom at work and necessary normal exercise, all of which affects the general physical condition.

A proper shoe for man or woman should embrace the following features: A low, broad heel, a snugly fitting heel, an inner edge straight from heel to great toe, room for spread in the metatarsal arch when weight is put on the foot, and a snug arch.

It is about time such shoes were made in popular quantities and prices, and when they are made, physicians should urge their universal wear. Why not get some modern ideas of beauty and health into Dame Fashion's superannuated cranium, and give American women an opportunity to cease imitating the Chinese woman and the horse of 4,000 years ago?

EDITORIAL COMMENT.

Health officers, physicians, and public authorities should be prepared for a probable recrudescence of epidemic influenza next fall.

You are undoubtedly interested in knowing how your Assemblyman and Senator responded to the roll call. Read "The Roll Call and Results" in this issue of the Journal.

"Good health and good sense are two of life's greatest blessings. Health is the vital principle of bliss, and exercise of health."

Strange, is it not, that newspapers which parade the prurient episodes of murder, divorce and abortion in heavy type on the first page, should modestly refuse to call syphilis and gonorrhea by name! Such hypocritical mock modesty is a tremendous handicap in public health education.

Sellards¹ describes a simple practical test for acidosis which can be employed in the home as well as in the hospital. In health five grams of sodium bicarbonate daily are sufficient to give an alkaline urine. When there is serious reduction of the alkaline reserve of the body, 100 grams daily may still leave the urine acid.

Perusal of the State Society papers leads to the pessimistic conclusion that the Journal's editorials are carefully shunned by authors. Wrong capitalization, incorrect spelling, narrow margins, single spacing, carbon copies, and still other and lesser sins are all too frequent. Also, and not least, why be verbose? See if it can be said in fewer words, or better left unsaid.

There is excellent reason, physiologically and biologically, for condemning the daylight saving act. Chickens and children are not concerned about clocks and refuse to regulate their doings by act of Congress. The childless city dweller may fancy he profits by an extra hour of twilight. The dew, however, does not dry any earlier in the field, nor does the sun reach the meridian beauty and glory of the day by the clock, but by the sun-dial. We are opposed to daylight saving in this postbellum era and believe that the average man would be healthier, wealthier and wiser would he regulate himself by the sun, instead of trying to accommodate the sun to his own slothful habits.

Dr. George E. Vincent, president of the Rockefeller Foundation, in a recent address² on the relation of the university to the public health, says: "The progress of public health in a democracy depends directly upon 'selling the idea' to the public. The experience of various state boards and voluntary societies in this country, the public health campaigns of the Red Cross and the International Health Board in France, have proved that vivid and picturesque publicity, verbal and visual, accomplishes valuable results. Shall work of this sort be left to independent advertising experts and popularizers, or shall universities recognize the art of applied mass-psychology, and consciously train men and women to organize and administer campaigns of popular education in preventive medicine?"

¹ Principles of Acidosis.

² Science, March 14, 1919.

Special Article

THE ROLL CALL AND RESULTS.

Have you analyzed the roll call since the Legislature adjourned? When the Assembly and Senate chambers are deserted, and the members have done their best or worst and departed, and the little brief authority in which they were dressed looks briefer and more diminutive, it is well to consider calmly and impersonally the "ayes" and "noes." Whether your representatives were representing or misrepresenting you at Sacramento is not a matter of conjecture but of record. The roll call tells the story.

The roll call of the forty-third session of the California Legislature shows that "Nature hath formed strange fellows in her time," and that some of them were members of that Legislature. Some of these "strange fellows" who voted to bestow the title of physician and surgeon upon many whose qualifications were unknown to them, and others, whose utter lack of qualifications was a matter of official record, are now claiming complacently that they voted under a strange misapprehension.

They now confess, what is ever obvious to thoughtful men and women, that the highly technical skill of modern medicine and surgery can only be acquired by years of special training. They admit that definite educational qualifications are essential and that the State has already established by fair examinations the proper method of determining who are qualified to practice medicine and surgery in this state. They acknowledge that to permit the uneducated, incompetent, inexperienced and unqualified to attempt to control communicable diseases, to prescribe narcotics, to administer medicine, to perform serious operations, etc., would not only endanger the life of every man, woman and child for whom they prescribed or upon whom they operated, but would be a positive menace to the public health. 'Tis strange, but true; for truth is always stranger than fiction, that some of these strange fellows believe as here set forth, and, nevertheless, voted for Assembly Bill No. 933, introduced by Frank W. Merriam of Long Beach. Why did they do it?

Reasons as plentiful as blackberries in June and varied as rainbow tints have been offered.

Some claim in extenuation for their mistake in voting for such a dangerous measure as Assembly Bill No. 933, that they were told and believed it merely permitted the osteopath to continue the same practice which he has enjoyed for the past twelve years. That many members of the Legislature were regaled with that romance seems credible, as Dr. W. W. Vanderburgh, osteopath, conversed with various members of the Legislature, but that they believed it seems incredible. They had the bill itself before them, and despite the inaccurate statements of Dr. Vanderburgh, made in the public press, that the bill merely permitted the osteopath to enjoy the same practice he has enjoyed for twelve years, the most cursory examination of the bill would have revealed its pernicious purpose.

W. W. Vanderburgh, osteopath, a former member of the Board of Medical Examiners, during the controversy over this bill, allowed his imagination to become overheated, and the result was a supercharge that the American Congress refused to commission or recognize osteopaths in the U. S. Medical Corps during the war, because Congress was influenced by the powerful lobby of the American Medical Association.

This would have been a serious charge if one were deluded and took this illusion of Dr. Vanderburgh seriously. Of course, the evil influence of this alleged powerful lobby upon Congress is not only fictitious but slanderous. That osteopaths, who would have been the beneficiaries of Assembly Bill No. 933, were not commissioned by the Government was possibly due to the fact that the Government was seeking the best for its men and could not afford to risk unnecessarily the health of any of its fighting units; and so it did well not to recognize or commission a single beneficiary of this bill.

It is only on the violent hypothesis that the Legislature has some magic power to infuse medical knowledge, impart scientific information and supply surgical skill, even where fair examinations have disclosed the aching absence of this essential knowledge, information and skill, that the action of those members of the Legislature who voted for Assembly Bill No. 933 can be logically explained. It is similar to the inconsiderate type of legislation proposed by reckless Jack Cade when he vowed reformation and promised that seven half-penny loaves should be sold for a penny, "the three-hooped pot shall have ten hoops," and that he would apparel them all in one livery. He didn't care a whoop whether the hoops or livery fit. A number of legislators, in fact a majority of one in both the Assembly and Senate, decided to apply "the hoop idea" of legislation to physicians and surgeons and "apparel them all in one livery." They decided to clothe the competents, the incompetents, the qualified and unqualified with equal power and uniform titles. Why did they do this?

The most convincing explanation was offered by a shrewd political observer long familiar with the course of legislative men and measures. He stated the case laconically. "Political power pursues the line of least resistance. The medical profession offered the least resistance. An inferior, insignificant active minority impresses a Legislature far more than a superior inactive, influential majority. A majority of the Legislature believed that the ethical physicians and surgeons were indifferent, inactive and inoffensive in political and legislative affairs. Pressed by an organized minority they yielded and wholesaled the titles of the majority."

The medical profession of California, however, was not dead but sleeping, not indifferent, but inactive.

It has been aroused by the League for the Conservation of Public Health, and has proven that it is not too cowed to fight. One of the quickest and most effective responses ever given by any body followed the memorable call of the League to come to Sacramento.

The League wrote to Governor Stephens, requesting a public hearing for the purpose of presenting arguments to the Governor against Assembly Bill No. 933. The hearing was granted. The League sent out a call to doctors throughout the state and, within only thirty-six hours' notice, distinguished men and women of the medical profession came to the State Capitol from every section of California in such numbers that they filled the Senate chamber. The merits of the question were fully, frankly and forcefully presented by Mr. Celestine J. Sullivan, the executive secretary of the League, and the sound judgment of Governor Stephens was demonstrated by his pocket veto of the bill.

The preservation of definite medical standards is essential to safeguard the health of the people. The duty of the state to protect the life and health of its citizens is a fundamental principle of government. Governor Stephens, as Chief Executive of the state, was merely performing this duty when he refused to sanction a law that would remove necessary safeguards and seriously menace the health of the public. The action of the Governor on this particular bill was in the interests of the people and will receive the unqualified approval of all who believe that those who treat the sick and afflicted in this state should be properly qualified.

The ethical members of the medical profession would have shown culpable indifference to the public welfare and been unworthy of the trust reposed in them by the public if they had not heeded the call of the League on this vital subject. We wish to congratulate the League and felicitate ourselves on the happy result. There were other bills before the Legislature in which hidden dangers lurked. These dangers were uncovered by the League and the bills are now hidden on harmless shelves. It required intelligent, organized persistent activity to accomplish what has been achieved. Eternal vigilance is the price of medical freedom, the same way that it is the price of commercial, religious and political freedom. Anyone who believes in keeping the medical profession isolated—wholly aloof from any participation in civic affairs—is evidently not aware of what is transpiring in this state and elsewhere in reference to the practice of the healing art. No physician and surgeon can say that he is intelligently interested in advancing or improving the medical profession or in maintaining the ethical practice of medicine or in promoting or protecting the public health who does not take an active interest in selecting those who pass the laws and also those who administer the laws. The ethical medical profession has no favors to ask and no special privileges to request. The interests of our profession and the public are identical. To whatever we advocate or whatever we oppose we shall apply the best test and touchstone for all measures—the common good.

Reviewing the roll call of the forty-third session of the California Legislature and applying that test, we are able to divide the members of the Legislature into three groups. In the first group we have placed the names of those who

voted to uphold standards and consistently opposed measures tending to remove safeguards vital to public health.

In the second group we have placed the names of those who at times were favorable, indifferent at other times, sometimes against standards and temporarily inclined to waver.

In the third and last group we have placed those who voted to lower standards. We are reserving for other occasions many comments on each of the groups and on the individuals that compose them.

GROUP ONE. Assemblymen: Anderson, Bennett, Broughton, Bruck, Calahan, Collins, Gehhart, Godsil, Gray, Greene, Hawes, Hilton, Johnston, Kasch, Kenney, Lamb, Lewis, Lindley, Manning, Mathews, McColgan, McCray, Morris, Morrison, Odale, Parker, Polseley, Prendergast, Ream, Rose, Rosenshine, Saylor, Stevens, Strother, Vicini, Warren, Wright, J. M. **Senators:** Anderson, Benson, Breed, Burnett, Canepa, Carr, Frank M., Crowley, Flaherty, Ingram, Johnson, Jones, McDonald, Purkitt, Rigdon, Rush, Scott, Sharkey, Thompson, Nealon.

GROUP TWO. Assemblymen: Badaracco, Browne, M. B., Easton, Eksward, Goetting, Locke, Martin, McKeen, Miller, D. W., Wright, H. W. **Senators:** Harris, Otis, Slater.

GROUP THREE. Assemblymen: Allen, Ambrose, Argabrite, Baker, Bromley, Brooks, Brown, J. S., Carter, Cleary, Cummins, Doran, Dorris, Eden, Fleming, Graves, Hughes, Hurley, Kline, Knight, Lynch, Madison, Mathew, Merriam, Miller, H. A., Oakley, Pettit, Price, Roberts, Wendering, White, Wickham, Windrem. **Senators:** Boggs, Brown, Carr, Wm. J., Chamberlin, Dennett, Duncan, Evans, Gates, Hart, Inman, Irwin, Kehoe, King, Lyon, Rominger, Sample, Shearer, Yonkin.

Original Articles

A REVIEW OF OUR KNOWLEDGE CONCERNING THE ETIOLOGY OF INFLUENZA,*

With notes on the Bacterial Flora of Respiratory Cultures of Influenza Patients in San Francisco, and the Value of Prophylactic Vaccination with B. Influenzæ Vaccine.

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The request of your Committee, to introduce a symposium on Influenza by a consideration of the etiology of this disease was accepted, after some hesitancy, with the understanding that the speaker might be permitted to outline certain features, rather than to undertake a full discussion of the already extensive subject itself. Recent investigations of the nature of the microbial cause of influenza are sufficiently comprehensive to justify the

expectation that one should be able to draw some final conclusions. This, however, is not the case. There still remain many mooted facts which are deprived of their value by conflicting views and hypotheses. If one has read the older literature concerning influenza, it will be found that the discussions which accompanied each epidemic were identical with those which one reads and hears today. There is one striking difference, however; today there is little opposition to the view that influenza is an infectious disease. Most persons now agree that it is a communicable disease transmitted largely by personal contact, even in spite of the failure of some experiments which have been unable to transmit it artificially from person to person. Irrespective of all the careful bacteriologic studies dealing with all the micro-organisms which have been stigmatized as possible etiologic factors, clinical and anatomical evidences have shown that influenza is a definite infection which lowers bodily resistance to a wide variety of bacteria. Furthermore, it is evident from the available clinical data that the so-called influenza bacillus alone does not cause the condition, but that there must be an unknown factor which is responsible for uncomplicated influenza. The bacteriologist and the experimental pathologist are therefore forced to consider and discuss the etiology of influenza from three different viewpoints:

A. The distribution and incidence of the various micro-organisms which have been isolated from respiratory cultures of typical influenza.

B. Immunity and the value of prophylactic immunization.

C. An analysis of the data which support or refute the belief that influenza is caused by an unknown virus. The clinical and bacteriologic similarity of influenza with diseases known to be due to ultramicroscopic or filterable viruses.

I. *The distribution and incidence of various micro-organisms isolated from respiratory cultures of typical influenza cases.*

The methods of sputum, throat and respiratory cultures evolved during the past few years have been applied for the first time to the etiologic investigations of pandemic influenza since the 1889-1892 outbreak. Available for critical analysis are the results of work conducted in the United States. With a few exceptions the data have been collected from a broad point of view by a uniform technic, and present exceedingly valuable facts; which in turn are comparable to the somewhat meager information gradually accumulating from other parts of the world.

The most striking feature of the bacteriologic findings is the large number of different bacteria found in the respiratory secretions of influenza patients; it is rare that one well defined species is found alone in pure culture and that one can designate it, according to the orthodox dicta of bacteriology, as the causative organism of the disease. In the recent literature, evidence is also presented that one and the same patient can show on successive days a change in the character of the microbial flora of the respiratory tract. Sahli (5) has seen a complete shift from a pure influenza

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Article abridged for printing. Additional charts, references and discussion will appear in reprint.

THE BACTERIOLOGY OF RESPIRATORY CULTURES BEFORE AND DURING THE APPEARANCE OF PANDEMIC INFLUENZA IN SAN FRANCISCO

Microorganisms	Pre-epidemic period		1st Wave of Pandemic Influenza				2nd Wave of Pandemic Influenza	
	Sputum and throat cultures		Sputum cultures		Sputum cultures		Sputum cultures	
	77 adults	34 children	90 on 75 cases	41, of cases of influenza pneumoniae	40, throat swabs	40, urine	4	4
			Sputum cultures	throat cultures	throat cultures	urine	sterile	sterile
B. influenzae	A 2 = 2.58%		31 = 68.7%	1 = 33.3%	2 = 4.4%		13 = 31.7%	
Pneumococcus Type I	A 15 = 19.35%; C 2 = 5.88%		3 = 6.6%	0 = -			1 = 2.4%	
" Type II	A 5 = 6.45%; C (1) atypical		2 = 4.4%	0 = -			8 = 19.5%	
" Type III	A 9 = 11.61%; C 1 = 2.94%		1 = 2.2%	1 = 2.2%			10 = 24.3%	
" Type IV	A 19 = 25.51%; C 18 = 52.92%		11 = 24.4%	8 = 17.7%			19 = 46.3%	
Streptococcus hemolyticus d and ft. types	A 5 = 6.45%; C 6 = 17.64%		11 = 24.4%	9 = 20%			20 = 48.7%	
Streptococcus infrequens " angineus	-----						5 = 12.1%	
" pyogenes	-----						3 = 7.3%	
Not classified	-----						6 = 14.6%	
Streptococcus nonhemolyticus	A 16 = 20.64%; C 7 = 20.58%		30 = 66.6%	44 = 97.7%			6 = 14.6%	
Streptococcus salivarius mitis							1 = 2.4%	
Not classified							3 = 7.3%	
Staphylococcus aureus	A 2 = 2.58%; C 2 = 1.8%		27 = 60%	37 = 82.2%			9 = 21.9%	
Micrococcus catarrhalis	-----		13 = 28.8%	12 = 26.6%			1 = 2.4%	
Friedlander's bacillus B. aerogenes	A 1 = 1.29%; C 1 = 0.90% A 3 = 3.87%; C 3 = 1.70%		3 = 6.6%	2 = 4.4%			-----	
Diphtheroids							1 = 2.4%	
NOTES:	A 77 with 24 deaths = 31.18% C 34 with 6 deaths = 17.64% One lung culture Staphylococcus aureus pure One case mixed infection with Pneumococcus Type II and III							

culture to one of pure pneumococci. Blake (6) and others called attention to the frequent occurrence of such floral changes, which they feel justified in explaining on the recently recognized fact of superimposed or secondary infections.

By contrasting these observations, made in diverse places, one is naturally confronted with the problem of distinguishing the accidental from the omnipresent micro-organism and of recognizing the bacterium which appears to be responsible for influenza.

Our findings in respiratory cultures before and during the outbreaks of pandemic influenza in San Francisco are chosen to serve as a basis for such analysis. By using a uniform technic it was our intention to determine the frequency of the various organisms found in respiratory diseases on the Pacific Coast. Our interest during the pre-epidemic period was centered mainly on the distribution and incidence of the various pneumococci, but was involuntarily supplemented by findings which gained in importance when we analyzed the bacteriologic data collected during the first and second waves of influenza.¹

The incidence of the various organisms encountered and their relative distributions are summarized in Table I.

It will be noted that the B. influenza was found in 68.7 per cent of the sputums, and 33.3 per cent of the throat cultures during the first wave; and 31.1 per cent of the sputums were positive for this organism in the second wave of the epidemic. In no instance was this organism found pure in the secretions studied. Two blood cultures revealed, however, the B. influenza in a pure state. Next in frequency rank the non-hemolytic streptococci and the staphylococcus aureus, which were found practically in every culture made from influenza patients. The hemolytic streptococci, pneumococci and micrococcus

catarrhalis were found in about one-quarter of the cases during the first wave; they gained in importance, however, in the second wave. Various other organisms were sometimes isolated, but on rare occasions only. Their influence on the course of the disease seemed to be of no significance.

In contrast to these data, the findings made in the pre-epidemic period are of some interest. Only sputums of typical cases of pneumonia were studied, however, at that time, and special culture media to isolate the B. influenza were not employed. Therefore, the low percentage of 2.58 per cent of B. influenza in these pneumonia cases in all probability does not represent the true index of distribution and incidence of B. influenza in the respiratory tract of the civilian population of San Francisco. Attention is directed, however, to the incidence of the various types of pneumococci in the pre-epidemic period and during the epidemic itself. About one-fifth of all cases of pneumonia were due to Type I pneumococci in the period preceding the epidemic. Only 2 per cent. to 6 per cent of the influenza patients showed pneumococci of this type; most of these organisms belonged to the group of pneumococci generally designated as Type IV.

On several occasions, not detailed in Table I, because only determinations for pneumococci had been carried out, mixed infections of two types of pneumococci were recorded. A change from one type of pneumococcus to another type later, in the course of the influenza infection, was also noted in a few instances. It may be of interest, perhaps, to know that the influenza cases with Type I infections, which were diagnosed early in the disease, responded promptly to serum treatment with Type I serum.

Undoubtedly the most important question to decide is, which single one of the long list of accused micro-organisms or which group or "symbiotic complex" of them is primarily responsible for pandemic influenza? For the sake of clearness it would seem advisable to consider each type or group of organism separately.

1. The duration of the first wave was considered to cover the period from October 1st, 1918, to November 30th, 1918; the second wave from December 1st, 1918, to February 20th, 1919.

(1) B. INFLUENZÆ.

Since the discovery of the bacillus of influenza by Pfeiffer in 1892, towards the end of the 1889-1892 epidemic, there has been a considerable amount of discussion as to whether this bacillus is or is not the etiologic agent of acute influenza. The conclusions of Leichtenstern in 1912, that "the B. influenza has sunk in the last ten years to the position of a saprophyte, found in bronchiectasis and tuberculosis, and that it is only sporadically dangerous and then only as a mixed infection," have not been accepted by Luetscher (1) and Lord (22), who found the organism in about thirty per cent of pulmonary infections in the interepidemic periods. Their presence in enormous numbers to the practical exclusion of other organisms in certain cases in the sputum during life and in the lung tissue after death suggested to these and many other writers that they are important contributory or principal factors in causing pathologic changes in man. Their occasional presence as the sole apparent cause of meningitis and suppurative lesions in various parts of the body was still further suggestive of their pathogenic power at certain times at least. It is true, however, that since the pandemic of 1889 and 1890 many of the so-called influenza epidemics have been found to be due to pneumococcus or hemolytic streptococci.

The following facts can be presented in the evidence against Pfeiffer's bacillus being the cause of influenza:

(1) *The Contagiousness:* The exceedingly high contagious nature of pandemic influenza—which traverses countries with a rapidity without an equal in the annals of epidemiology—suggests a causative organism of extremely small size. Meteorologic conditions in many regions and communities were most unsuitable for a bacterial infection to gain a contagious character as noted in influenza. Our experiences with pneumonic plague (see the reports of Strong et al. (29)) substantiate this point completely. On the other hand, we are fully acquainted with diseases due to filterable or ultra-microscopic viruses which, on account of their minuteness and the dilutions in which they can be invasive, are very contagious, possibly "air borne"; they obey the physico-chemical laws governing the diffusion of gases and substances in solution in liquids. The acute exanthematic diseases caused by "volatile viruses" have been placed in this class of infections. Additional proof of the close relationship of these highly contagious diseases is furnished by the observations of Van Zwalenburg (30), Foster and Cookson (31), Loomis and Walsh (32), Bloomfield and Harrop (107), and our own, that influenza is probably most contagious during the incubation period.

(2) *The Clinical Picture:* The main features of uncomplicated cases of influenza are indicated by a constant set of symptoms, characterized by erythema and appearance of the mouth; fever of a definite duration and leucopenia (Sahli, Bloomfield and Harrop, 107). For our analysis the leucopenia only deserves consideration. It is gen-

erally stated that the B. influenza causes a leucocytosis in man as well as in experimental animals. Some unpublished observations with a filterable poison obtained from the B. influenza, according to the method described by Parker, demonstrated the fact that rabbits respond to this toxin by means of a marked leucopenia. In our experience, the rapidity and degree of disappearance of the leucocytes from the blood stream in these animals differ very little from the commonly occurring leucopenia when bacteria or other split products are inoculated intravenously. Therefore, the contention of many writers, that the presence of a leucopenia in uncomplicated pandemic influenza can serve as a strong proof against B. influenza, needs further experimental and clinical confirmation.

In the second part of this paper attention will be called to the analogy of certain clinical features of pandemic influenza with those of diseases of unknown etiology. Hypoleucocytosis is a constant symptom of the following virus diseases: Dengue fever, Pappataci fever, Hog-cholera (33), equine influenza (34). (See Footnote 2 and others.)

(3) *The Anatomical Changes:* The autopsy findings of uncomplicated cases of influenza resemble those of an acute hemorrhagic septicemia with marked pulmonary œdema and involvement of the lymphatics (the so-called status thymolymphaticus observed by many pathologists) which produces an extreme depression of the general resistance of the individual to the invasion of bacteria. Under these circumstances, micro-organisms that are present in the throat or are introduced from without, readily invade the tissues of the whole respiratory tract and give rise to pneumonia caused by the different types of pneumococcus, staphylococcus aureus, streptococcus hemolyticus, or the influenza bacillus of Pfeiffer (MacCallum, 35, Symmers, 36, and others). These findings are so constant—and particularly the changes caused by vascular injury are so striking—that we could not avoid being reminded of the same picture which we had observed in animal diseases, like hog cholera and equine influenza, etc. The pulmonary œdema is particularly known in African horse-sickness and bovine East Coast fever (see Meyer, Kolle & Wassermann's Handbuch d. pathogenen Microorganismen, 1913, vii, 551 and 555). In several autopsies with such characteristic lesions, careful and extensive bacteriologic tests failed to demonstrate the influenza bacillus, but the common bacteria of the respiratory tract. As an explanation, we offer here the well-known

2. We note that in the discussion of the diplostreptococci, in the "Abstract on Influenza" (J. Am. Med. Assn., 1918, lxxi, 1579), equine influenza, "pink-eye", Pterdestaupe and Druse, strangers of English, are considered identical and the terms are used synonymously. This assumption is incorrect; both diseases are etiologically different and are discussed separately in every text-book on comparative pathology. Equine influenza has recently been transmitted from horse to horse by means of filtrates of infectious material (Bemelman, Cent. f. Bakt. 1913, lxxviii, 828). Strangles, a disease causing a suppurative inflammation of the nasal mucous membrane with accompanying suppuration and necrosis of the regional submaxillary lymph nodes, is definitely proven to be solely caused by the streptococcus equi. This organism, the strangles streptococcus, according to the studies of Adersen (Centr. f. Bakt., 1915, lxxvi, 111) is a long-chained, biochemically well defined specific coccus, which has very little in common with the diplococcus of Rosenow. The "Abstracts" fail to state the author of this misleading confusion.

fact that diseases due to filterable viruses are prone to invasion by bacteria. The diplococcus equi, while found frequently in cases of equine influenza or the so-called hog-cholera bacillus demonstrated in almost every case of hog cholera, have no etiologic relationship to the disease, the cause in every instance being a filterable virus. The evidence presented in previous paragraphs suggests that a similar connection exists in pandemic influenza.

(4) *The absence of B. Influenzae in Typical Cases of the Disease:* According to recent reports, Pfeiffer's bacillus appears as an inhabitant of the nasopharynx in endemic or epidemic distribution. In our experience typical cases repeatedly studied by a searching technic failed to show the influenza bacillus.

(5) *The Occurrence of B. Influenzae in Other Infections Than Pandemic Influenza:* The studies of Lord (22), Davis (37), Cole and MacCallum (38) and others have shown the Pfeiffer's bacillus to be a frequent finding in the sections from the respiratory tract under such a variety of conditions as pulmonary tuberculosis (33 per cent), measles (from 19 to 78 per cent), scarlet fever (39 per cent), diphtheria (60 per cent), and varicella (100 per cent). In consumptives, suffering from influenza, Corper and Downing (17) found the Pfeiffer's bacillus in a very high percentage (62-100 per cent). The organism certainly cannot be regarded as of etiologic importance in these diseases, but may be of significance as a secondary invader.

(6) *Attempts to Reproduce Influenzae in Human Volunteers and in Monkeys by Means of the Pfeiffer's Bacillus Have Been Unsuccessful:* In this connection we recall the observations of Pfeiffer (39) and the recent careful studies of Goldberger and McCoy (40) and Da Cunha et al. (41).

(7) *Immunization with B. Influenzae Vaccines Do Not Protect Against Pandemic Influenza.* This statement is based on the observations of Barnes, McCoy, Murray, Teeter, and our own series of vaccinations. Robertson (79) is the only writer who claims protection by the use of sensitized B. influenzae vaccines.

(8) *Experimental Work Has Demonstrated, in a number of Instances, the Presence of a Virus in the Respiratory Secretions and the Blood of Influenza Patients:* A discussion of this phase of the influenza problem is reserved for separate paragraphs of this communication.

The following facts may be mentioned in favor of the views that the Influenza bacillus is the cause of influenza:

(1) *The Influenza Bacillus is More Frequently Isolated Than Any Other Organism:* This statement may be true for a large number of communities, but is certainly not supported by the observations in the Middle West and Baltimore mentioned repeatedly. Numerous other observations fail to support this contention, for example, Meunier (42) in France noted during the first epidemic wave in May a predominance of the

Pfeiffer's bacillus; in August, during the second wave, he could not find this organism, its place being taken by pneumococci or streptococci.

(2) *A Toxin Rapidly Liberated in Culture Media by the B. Influenzae Produces in Rabbits Symptoms Similar to Those Noted in Influenza Patients:* The experiments of Julia T. Parker (43) are thus far the only published data on record. They are very suggestive and can be used in explanation of many of the clinical facts of the disease. They certainly deserve further inquiry.

(3) *The Strain of B. Influenzae Causing Pandemic Influenza Differs From the Strains Which Have Been Isolated in Other Diseases or From Control Cases of Influenza:* A few incomplete reports (Rapoport, 44, Spooner et al., 45, A. Williams, 46) do not furnish support for this conception, but positive conclusions must be deferred until more decisive evidence in one or the other direction is brought forward. We understand that Park and Williams (48) are conducting a serological study of the various strains of the influenza bacillus isolated from typical cases and from control cases.

(4) *Antibodies (Agglutinins, complement fixing substances) Have Been Demonstrated in Convalescents From Influenza Pneumonia:* Spooner, Scott, Heath (45), Rapoport (44), Fleming (49), and others found specific antibodies in the serum of about 50 per cent of convalescent influenza pneumonia patients. Natural agglutinins were not found, but in about 9.6 per cent control sera gave a positive complement fixation reaction. Thus far no reports are available in which the sera obtained from uncomplicated cases have been subject to serologic tests. Whatever the outcome of further tests may be, they will only support the fact that a large percentage of influenza patients have been invaded by the influenza bacillus and that this organism plays an important part in the complicating pneumonia of influenza; but they furnish no conclusive evidence of an etiologic role of the Pfeiffer's bacillus.

(5) *The Occasional Presence of the B. Influenzae in the Blood Stream:* Medalia (11), Fleming (49) and others report occasional findings of B. influenzae in intravital blood cultures. The small percentages (Medalia 5.8 per cent) of positive results are not in accord with the clinical picture of a septicemia, or in harmony with our conception of the disease.

In summarizing this discussion on the B. influenzae it can be stated that the evidence is against the hypothesis that this organism is the primary etiologic factor of pandemic influenza. However, its presence in the sputum during influenza epidemics seems to be of definite diagnostic value and may have some significance in complicated cases.

(2) *Pneumococci and Streptococci.*

This group of bacteria frequently and, in some localities, exclusively found in the secretions of influenza patients, needs little comment from the standpoint of etiologic importance. Innumerable

reports, published long before influenza made its appearance, give vivid testimony of the etiologic importance of pneumococci and hemolytic or non-hemolytic streptococci in respiratory diseases. In our experience some observations deserve a more detailed consideration, however.

It is the general belief that most pneumonias following influenza resulted from *autogenous infection* with pneumococci or streptococci normally living in the nasopharynx of buccal cavity of man. With Opie, Blake and others (10) we believe this conception to be incorrect. Bacteriologic (Opie and Blake) as well as anatomic studies (MacCallum, 35) have shown that the secondary infection in influenza can be displaced by successive tertiary or quaternary infections. Systematic and repeated sputum cultures have shown that superimposed double pneumococcus or hemolytic streptococcus infections were common in the wards in which such cross infections were permitted to take place. Every patient and every person engaged in the care of cases with respiratory diseases should be regarded as a potential source of danger. Epidemiologic data show that influenza patients are more in danger from the streptococci and the pneumococci carried by their neighbors, or from contact infections with contaminated eating utensils, than from their own respiratory microbial flora. The evidence collected by Opie and collaborators to the effect that streptococcus or pneumococcus pneumonia following influenza may spread by contagion throughout an entire ward, deserves the attention of every physician and public health worker.

It is also evident from some French reports, that similar observations were made in Europe. In a summary: "Sur la prophylaxie de la grippe" (50), it is mentioned that influenza predisposes to secondary infections, which in themselves can become transmissible to a very high degree.

The endemic or epidemic occurrence of fixed types of pneumococci or certain hemolytic streptococci (see Ely, Lloyd, Hitchcock and Mickson (51) as inhabitants of the respiratory tract where they serve as potential causes of pneumonia, explains the frequent local distributions of such complications. Prevention and a rational therapy of these or typhoid protein (see Cowie and Beaven, 108), pneumonias by means of serums (see Medalia, 109) are only possible when repeated, and systematic sputum cultures are made on all complicated cases of influenza.

Another fruitful field for research is opened by the reports on the so-called "Diplococcus epidemicus" and all the allied non-hemolytic streptococci so frequently isolated from the secretions of influenza patients. Very little is known concerning these organisms, but we fully agree with Davis (15) in his conclusions that "there are as good reasons for saying that the diplostreptococcus is the cause of influenza, as for saying the Pfeiffer's bacillus is the cause."

(3) *Staphylococcus aureus*.

Early in the course of our bacteriologic studies

of influenza secretions, we were impressed by the frequent occurrence of staphylococcus colonies; sometimes in pure cultures. The significance of these organisms was only apparent when Patrick (52) Chickering and Park (53) showed in their excellent report that this organism, which is commonly found in the nose and throat of healthy individuals, may give rise to a serious, nearly always fatal, complication of influenza. In 49.0 per cent of the three hundred and twelve (312) cases, cultured by these workers, the staphylococcus aureus was present either alone (92 cases) or in association with various other bacteria. Chickering and Park consider the staphylococcus aureus not as the primary etiologic agent, but conclude that "the depressions of the individuals' defensive mechanism by the primary epidemic infection was sufficient to enable these cocci, found in the mouth secretions of healthy persons, to subsequently produce widespread pulmonary lesions." In the future, staphylococcus aureus should, therefore, be added to the list of complicating factors of influenza and should be recognized as an important organism in influenzal pneumonia.

(4) *Micrococcus Catarrhalis and Meningococci*: Recent reports support the early English findings of micrococcus catarrhalis in influenza secretions, but they are unanimous in the conclusion that this organism has no etiologic significance in the disease.

The findings of meningococci in influenzal pneumonia deserve, however, a more detailed consideration. Fletscher (54) found in 36 autopsies, meningococci eleven times (six Type II, one Type I, and four not typed); Kraus (20) reports parameningococci, and Chickering and Park (53) noted on several plates colonies identical with those of the meningococcus. Only one strain grew in subculture and could be identified as a true meningococcus. The presence of these organisms in the lungs (see also Jacobitz; Ztschr. f. Hyg., 1907, 56) and the occurrence of meningococcus complications in influenza, opens up a new aspect to our knowledge of the activities of the meningococcus. These cocci certainly have no primary etiologic importance.

(5) *Friedländer's Bacillus Group*: According to Rucker and Wenner (55) and Nichols and Stimmel (56) the pneumobacilli have pathologic significance as secondary or terminal invaders. In some cases they may be responsible for complicating bronchopneumonias. The most important point, however, that these writers make is that in smears these organisms can readily be mistaken for influenza bacilli.

(6) *Spirochetes and Spirillae*: Numerous French writers (MacIaud, Ronchere and Lantenais, 57, Loygne, 58, and others emphasize the presence of non-pathogenic spirochaetes in influenza secretions.

(7) *Bipolar Organisms*: Ciauri (59), Pontano (60), Italian bacteriologists; Harris (61) in England; and Chickering and Park at Camp Jackson and Kotz in Easton, Pennsylvania, found in several cases organisms conforming culturally and

morphologically to bacilli of the hemorrhagic septiemia group. From the available data we may conclude that these organisms have no more significance in the etiology of influenza than the ubiquitous diplostreptococci.

In connection with this critical analysis of the bacteriological findings of influenzal respiratory secretions, it would seem to be appropriate to discuss also the question of immunity in influenza and the value of prophylactic artificial immunization with bacterial antigens prepared with the predominating organisms found in influenza.

B. Immunity and Prophylactic Immunization:

That a relative immunity is produced in an uncomplicated case of influenza is indicated by the course of the disease. A critical drop in temperature suggests the mobilization of neutralizing antibodies (H. Sahli (5) and Minkine (62)). The periodical recurrence of pandemic influenza with the peculiar age predisposition may well be explained on the basis of a relative immunity. However, until we know more concerning the "complex virus" of influenza, it may be advisable to adhere strictly to some selected, convincing examples which have been reported from Europe.

Lemierre, Raymond (65) and other French army surgeons noted the following occurrence:

1st group of artillery had 3 cases of influenza in April; 114 in August.

2nd group of artillery had 20 cases of influenza in April; 54 in August.

3rd group of artillery had 100 cases of influenza in April; 3 in August.

A natural immunity against influenza in young people is generally estimated to be found in 12 per cent (Hamilton and Leonhard) to 25 per cent of the community.

Many mooted questions concerning the immunity in influenza can only be solved by a careful analysis of the available data.

And again, the general belief that influenza will attack patients repeatedly, can only be refuted irrevocably, when the clinicians begin to separate annual grippé from pandemic influenza and when modern bacteriologic methods are applied to the study of such instances. A discussion of all these problems would be exceedingly profitable, but is not in the scope of the present analysis.

The explosive and gigantic outbreak, accompanied by an alarming mortality, impressed public health workers, physicians and bacteriologists so profoundly that they felt justified in resorting to a form of prophylactic immunization which would stop the threatening course of influenza. In the light of what we knew at that time and what has since been published, we can only state that prophylactic immunization was, and is, a great experiment. On the other hand, we felt that the intelligent use of pure B. influenzae vaccine might give us strong evidence in regard to the etiologic relationship of this bacillus to the present pandemic. As already indicated in previous paragraphs, it cannot be said that convincing evidence

has been forthcoming in favor of the procedures so far employed.

Wittingham and Sims (71), 1918, used a vaccine containing in addition to the organisms already mentioned, the micrococcus catarrhalis and the meningococcus. Among 156 inoculated persons the incidence of influenza was 5 per cent and among 149 uninoculated it was 12 per cent.

In an account of the work of the Illinois Influenza Commission during the recent epidemic, C. St. Clair Drake, 1918, states that among the Illinois counties answering questionnaires concerning the results of the use of vaccines within their boundaries, twenty-nine counties believed that the vaccine had served to prevent the spread of infection.

In the light of this deduction it may seem unnecessary to add further negative results concerning the value of vaccination against influenza. Our observations are quite in accord with those of Barnes and McCoy, and lend considerable weight to the expressed opinion that the B. influenzae cannot be considered the primary cause of influenza.

Our experiences with a polyvalent B. influenzae vaccine were as follows:

Toward the end of October and beginning of November we prepared, at the urgent request of the Health Officer of San Francisco, Dr. Hassler, about 50,000 cubic centimeters of a polyvalent B. influenzae vaccine. Ten strains of B. influenzae isolated in San Francisco during the pandemic were incorporated in the vaccine. The method of preparation was similar to that published by Leary (87). Some lots of the vaccine were sterilized by the addition of tricoresol instead of heat. The vaccine contained one billion organisms per cubic centimeter; when used it was never older than seven days. Fresh vaccine was employed because it was noted that the killed influenza bacilli autolyzed readily in saline solution. The studies of Huenekens (88) with pertussis vaccine indicate that only fresh vaccines afford the desired protection; by analogy we reasoned that for such a closely related organism as the B. influenzae similar factors may be of importance. It is our impression that autolyzed influenza vaccines gave less severe local or general reaction, and this in part explains the very mild reactions noted with the Leary vaccine which was completely autolyzed when it reached San Francisco. Three injections of one-half, one and one billion organisms were given on alternate days, subcutaneously. Complete filing cards of 617 vaccinations were kept by the social service department of the University of California Hospital. By means of questionnaires and patient's histories, so far 334—or more than 50 per cent of the vaccinations—results could be made available for analysis.

The results are summarized in Table III.

It is quite evident from the available statistical data that the vaccination with pure influenza vaccine failed to confer protection against the primary infection. The group of nurses at the University of California Hospital represents a very carefully

controlled set of vaccinated people. Following the vaccination 21.5 per cent during the first wave, and 32.7 per cent during the second wave contracted influenza at a time when the effect of the vaccine on theoretical grounds was expected to have reached its maximum. During the same time-interval, the morbidity percentage of the nurses at the San Francisco Hospital was 33.8 per cent. The figures dealing with the civilian population also indicate that the vaccination failed to prevent influenza infections. The total morbidity for San Francisco during the first wave was 5.3 per cent; in our vaccinated it was 6.7 per cent. It appears to be unnecessary to emphasize the various points which suggest themselves; the statistical data in Table III present the proof that prophylactic vaccination with a polyvalent B. influenza vaccine of the Leary or Park type failed to confer protection against pandemic influenza.

This series of observations is, naturally, open to criticism, because the use of the vaccine began only after the pandemic had already started and it was impossible to procure a sufficient number of control cases which were exposed to the same degree. We therefore abstain at this time from a more detailed analysis and offer for record the above stated general conclusions.

Before closing this discussion on vaccines, we desire to call attention, however, to a series of observations which suggest that vaccination during the height of a pandemic is not without danger. Ten of 107 nurses vaccinated developed typical influenza after the first or second injection. At first we assumed that these ten nurses were injected during the incubation time. But after further consideration we were more inclined to suspect that the vaccine "provoked" a latent or mild attack of influenza. Sahli (5) mentions quite a number of such provocations and extends a noteworthy warning against the promiscuous use of vaccines during pandemic influenza. In our series of observations these "provoked" influenzal attacks were not always mild and in several instances were complicated by bronchopneumonias. Provoked influenza cases should not be mistaken, however, for vaccine reactions. About 2 per cent of our total number of vaccinated, irrespective of the type of vaccine used, reacted either after the first, second or third injection, with symptoms which only after careful hospital observation were recognized as vaccine reactions.

In accordance with the plan outlined in the introduction, we will now proceed to discuss the data which supports or refutes the belief that influenza is caused by an unknown virus.

C. The Unknown Virus. In previous paragraphs attention has been directed to the close similarity, clinical and anatomical, of pandemic influenzal infections to certain animal diseases which, according to our present knowledge, are caused by filterable viruses (see Lanfranchi, 89; Bemelman, 90). This remarkable analogy has attracted the attention of a number of influenza investigators. Some have apparently been success-

ful in demonstrating such a virus, others failed, however, in many carefully planned attempts. The purpose of the following paragraphs is to summarize and analyze this experimental work.

Selter (91), who failed to find B. influenzae in the sputums of 33 cases examined at Königsberg submitted himself and his woman assistant to an interesting experiment. Their throats were sprayed for one-half minute with the saline filtrate of throat swab and throat washings of five patients. Both of them developed a typical, though mild, attack of influenza. He accepts the view of Kruse that the influenza virus belongs to the group of invisible microbes or aphanozoa.

In October, 1918, Nicolle and Lebailly (92), at Tunis, concluded from their experiments that the bronchial secretions of influenza patients are virulent for human beings and for monkeys. The unfiltered and filtered material employed for inoculations came from a patient who had been ill for two days. The unfiltered substances were inoculated into monkeys (Chinese bonnet monkey) by the subconjunctival and nasal routes, and in each case caused the disease. The filtered material was used upon human volunteers to whom it was given subcutaneously and intravenously. Those inoculated subcutaneously contracted the disease; those intravenously did not. Blood taken from a monkey suffering from the disease and introduced subcutaneously in man did not produce the disease. From these experiments it is concluded that the cause of the disease is a filterable virus which does not inhabit the blood stream, but which does inhabit the respiratory tract. The incubation time in the successfully infected monkeys and volunteers was six days.

Gibson, Bowman and Connor (93) repeated and confirmed the observations of Nicolle and Lebailly. Two rhesus monkeys, inoculated subconjunctively and intranasally with the filtered sputum from cases of human influenza (5th and 3rd days of the disease) became ill on the sixth and seventh day, respectively. Two control monkeys, kept in the same room under the same condition, manifested no signs of illness during the same period. Of the two inoculated monkeys, one rapidly regained normal health, all symptoms appearing to have subsided by the third day of the attack. The other seemed to be extremely ill on the afternoon of the third day, when it was killed for further examination. The respiratory tract of this monkey showed the presence of a hemorrhagic exudate affecting especially the lower lobes of both lungs. The condition found was, in many respects, comparable to that noted in certain human cases of influenza in which a fatal issue had supervened before the occurrence of marked secondary infection. Two rhesus monkeys, at first used as controls and subsequently inoculated, the one with filtered and the other with unfiltered sputum, collected from a case of influenza on the sixth day of the disease, showed no symptoms and remained well.

Da Cunha and his co-workers⁴¹ in Rio Janeiro inoculated monkeys with blood and sputum from influenza patients after filtration through a Berke-

feld or Chamberland F. candle. On two monkeys febrile reactions were recorded. Both monkeys failed to respond to subsequent inoculations with sputum filtrates. These experiments suggest the presence of a filterable virus in the respiratory secretions; evidence that the blood of influenza patients may harbor such a virus, is presented by a number of workers.

Dujarric de la Riviere⁹⁴ successfully transmitted to himself influenza by the subcutaneous inoculation of 4cc. of filtered blood derived from four severe influenza patients. The incubation was three days. The first inoculation conferred immunity, because a subsequent (10 days later) spraying of his nasopharynx and nasal mucosa with a filtrate of influenzal sputum failed to evoke any morbid manifestations.

Schofield and Cynn⁹⁵ conclude from a limited number of experiments on human beings, that the virus is present in the blood, but is probably not filterable. The possibility of a natural infection in these experiments is most probable and definite conclusions cannot be drawn from them.

Unfiltered blood from influenza patients induced—according to the observations of Blanc and Pignot⁹⁶, and Da Cunha and co-workers⁴¹, a febrile reaction when injected into guinea pigs. The reaction being in many respects comparable with those seen in typhus fever or similar disease.

In using the so-called Noguchi's method for the isolation of the virus of Poliomyelitis, Foster⁹⁷ succeeded a few years ago in cultivating a filterable organism which is generally accepted as being responsible for common colds. Quite recently Bradford, Bashford and Wilson⁹⁸, and Gibson, Bowman and Connor⁹⁹ in England, used the same method and report the presence of a filter passing virus in the sputum, blood, pleural fluid, etc. of influenza patients.

According to these writers the virus isolated in cases of influenza consists of very minute rounded coccus-like bodies, varying between 0.15 and 0.5 micra. It is gram positive and passes through various types of candles. It is an anaerobe, and resists heating to 56° C. for thirty minutes. It has been isolated by culture from the blood in six out of nine cases examined, from the sputum in six out of six examined, and from the cerebrospinal fluid in the only case examined. It has also been isolated from the lymphnodes postmortem in the only two cases examined. This organism can also be seen in stained films prepared from exudates, sputum, spinal fluid, etc. The culture (second generation) when inoculated into animals subdurally or intravenously, produces illness in guinea pigs and monkeys. Passage experiments done from such animals, when slightly ill, by injecting their blood, bile, etc., into healthy animals, causes in these more severe and even fatal illness, and postmortem the same lesions are found. The organism has been recovered by culture from tissues of such experimental animals.

All of these experiments need further confirmation which is naturally awaited with great interest.

The positive results in transmitting influenza to

monkeys or to human volunteers have been repeated by several workers in the United States and in Italy. Some early experiments of Rosenau and Keegan⁷, Nuzum, Pilot, Stangl and Bonar¹¹ and Micheli and Satta¹⁰⁰ were carried out on a small scale, frequently without the necessary controls, and ended in entirely negative results. The more recent investigations carried out by Gold- of the United States Public Health Service and the United States Navy on a very broad basis, deserve a more detailed analysis. For reasons as yet not entirely understood the experiments planned and executed to transmit influenza from patients to volunteers were not successful.

Inasmuch as we were permitted to participate actively in the experiments conducted by Doctors McCoy and Richey in San Francisco, we desire to recite briefly the most important points.

The volunteers chosen for the transmission experiments were sailors who had been quarantined and had not been exposed to influenza at the Yerba Buena Training Station. It was presumed that this personnel did not possess any special natural immunity. All of the men had also been vaccinated with large doses of a bacterial vaccine containing Pfeiffer's bacillus, the three fixed types of pneumococci and hemolytic streptococci. (For details see Minaker and Irvine, *J. Am. Med. Assn.*, 1919, LXXII, 847). From the results analyzed in previous paragraphs, such vaccination had probably no influence in promoting resistance to influenza infection and may be ignored for the purpose of these transmission experiments. The following experiments were carried out: In one group there was instilled into the nostrils of each man a heavy suspension made by emulsifying cultures of eight recently isolated strains of Pfeiffer's bacillus without filtration. The other group had the same material used after passage through a Berkefeld N. candle. The results were negative, though the men were held under observation for seven days.

Emulsions from the upper respiratory passages of active cases of influenza from 15 to 48 hours from the onset were instilled into the nose by means of a medicine-dropper or with an atomizer. In each experiment, approximately an equal number of volunteers were treated with the same emulsion after filtration through a Berkefeld N. candle. In every case the results were negative, so far as the reproduction of influenza was concerned. The men were all observed for seven days after inoculation.

A filtered emulsion of material from the upper air passages of an acute case of influenza was dropped into the conjunctival sac of two volunteers and the same material injected subcutaneously into one volunteer. In each case the result was negative.

One cubic centimeter of blood taken during the active stage of influenza was inoculated subcutaneously into one volunteer, with negative results.

Judging from these important experiments, we feel only justified in concluding that influenza can be transmitted only with a very considerable degree of difficulty, and yet the facts noted during

the epidemic indicate that the reverse is true. It is natural to suspect that there are essential conditions, especially in the American series, which prevented transmission. To the workers acquainted with unknown or filterable viruses, these facts are not surprising, and many suggestions could be offered for further experiments. Only a few facts are selected, however; a detailed consideration is being reserved for another publication.

The San Francisco experiments can be criticized from the viewpoint that probably the volunteers were immune to influenza. Such an assumption is, perhaps, justified in the light of some epidemiologic observations made in various localities. The writer desires to add another suggestion which deserves further careful investigation. In 1890 Goldschmidt made, in Madeira, the carefully controlled observation that those people of the harbor town of Funchal who had been successfully vaccinated against smallpox remained free from influenza. So far we have not been able to investigate the personnel at Yerba Buena Training Station along the lines suggested by the observations of Goldschmidt, but we consider the data of sufficient importance to call them to the attention of all workers in influenza.

Next in importance for further inquiry are the following points: Which of the many secretions of an influenza patient harbors the virus in an undiluted state; at what period of the disease are the secretions most infective, during the incubation time or during the entire febrile course of the disease, or very early in the course of the disease; where are the portals of entry of the virus?

Hundreds of experiments will have to be conducted to enable us to solve these most important questions. In our experience with many filterable and unfilterable viruses, we gained the impression that these viruses are very elusive and that inexperienced workers have to accept failures, as a rule.

Inasmuch as animal diseases caused by viruses for reason of the readily available number of receptive hosts, are more carefully studied, some of the facts established beyond a doubt may be of interest in this connection.

Contagious pleuropneumonia of cattle, caused by a readily cultivated and filterable virus has never been reproduced in its proper anatomical picture by inhalation experiments (see Hutyra and Marek, 102, and K. F. Meyer, 103). In Rinderpest the virus is apparently only found, with absolute regularity, in the blood and bile. The secretions from the eyes and mouth are infective in rare instances only. In certain exanthematic diseases, like sheep-pox, the virus is only found in the blood temporarily. The virus of foot and mouth disease can only be transmitted with difficulty by cutaneous or subcutaneous application to susceptible animals, but is always infective when intravenously injected or following subcutaneous introduction when blood vessels have been opened by the inoculation needle. Immediate intimate contact of the virus with the blood is an important factor for its transmission.

The virus of equine pleuropneumonia, according

to Gaffky and Luhs¹⁰⁴, is present only at the beginning of the disease in the bronchial secretions, and is probably associated with certain cell inclusions in the mononuclear cells found therein. The rather short infective period of the supposed virus spender has resulted in many unsuccessful transmission experiments. Loss of virulence by successive passage of the virus (agalactia contagiosa) and lack of contagiousness in otherwise highly infective virus diseases have been reported repeatedly. For further detailed information the reader is referred to our summary on filterable viruses¹⁰³.

In conclusion, we only wish to express our hope that the influenza problem, as one of the most important subjects of modern etiologic research, will receive the attention of every physician, laboratory and public health worker.

A REPORT OF INFLUENZA PNEUMONIA.*

Occurring in the San Francisco Hospital under the San Francisco Board of Health—in the Services of the Leland Stanford Jr. Medical School and the University of California Medical School.

By HAROLD P. HILL, A. B., M. D., Clinical Professor of Medicine, Leland Stanford Jr. University, and
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Chiefs of Medical Staff and the Staff of the Hospital.

The influenza epidemic in San Francisco occurred in two principal waves—the first beginning October 5, 1918, reaching its apex October 25 and ending November 19. The second wave began November 24, reached its apex January 10, 1919 and ended February 5, 1919.

These two waves gave an opportunity of observing 3422 cases, the great majority of whom presented lung signs.

The following report is based on an analysis of 2000 unselected cases.

It can only be by a careful clinical description, unbiased observation of the effect of treatment, bacteriological reports and necropsies that we may in time form a definite clinical picture of this disease—and finally give us a more rational basis for its prevention and treatment. With this end in view and for a comparison with the description of the epidemic as it occurred elsewhere these cases are reported. It must be noted here that the epidemic burst on San Francisco, as elsewhere, and although with foresight Dr. Broderick, Superintendent of the San Francisco Hospital, acting under the direction of the San Francisco Board of Health, had removed all patients from the Hospital and prepared it for the receiving of Influenza pneumonias—still the volume of work made complete and full records in all cases impossible. This was fairly well accomplished by attaching on the wall at the head of the bed in the wards, three record sheets:

On one was recorded graphically the tempera-

*Read before the Forty-eighth Annual Meeting of the Medical Society, State of California, Santa Barbara, April, 1919.

ture, pulse and respiration. The report of the urine and blood count was also written on this sheet.

The second recorded graphically the chest signs.

The third detailed the treatment.

This allowed of quick observation of conditions and treatment.

The average duration of the patients outside the hospital was 5.5 days.

The onset as recorded was sudden in over two-thirds of the cases. Eighty-five per cent. were between the ages of 18 and 45.

Cough, pain in the chest and throughout body, headache, weakness and chills were the common complaints.

The cough, which at first was frequently unproductive in many cases became blood tinged or distinctly bloody. Later there was commonly an amount of purulent expectoration.

The bloody expectoration varied—sticky sputum tinged with blood, thick viscid bloody sputum, rarely distinct hemorrhages, and in certain markedly cyanosed cases it was of a sero sanguinous character, which ran out of the mouth in quantities. Epistaxis was frequent.

The pain in the chest located beneath the sternum was of an annoying, raw, burning character, radiating through to the back between the shoulders—increased by the spasmodic, frequently in the beginning unproductive cough.

The temperature varied between 100-107. The highest recorded temperature was 107. The fall was by lysis in 85% of the cases—by crisis in 15%. The temperature was a better guide to beginning or increasing lung involvement than were the pulse and respirations.

The pulse at first was moderately accelerated, as a rule not in proportion to the temperature; of good quality and in the severe or fatal cases increasing in rate as the disease progressed, but rarely becoming irregular. It had a characteristic lack of sustained tension in certain cases—and this was always of serious moment. The cardiac dullness was rarely increased.

The respiratory rate was not over 32 in 44% of the cases.

The rate was not in proportion to the lung signs—but more directly in proportion to the toxemia—cases with few signs in the lungs might have a high respiratory rate, while cases with much involvement frequently showed under 32.

Lung signs were recorded in 84% of the cases—in 6% no record was made—10% were recorded without lung signs. In 58% both lungs were involved.

The lung signs were characterized by their varied multiplicity. The percussion note was less to be relied upon than the auscultatory signs. These last were predominantly posterior—at the base of either or both lungs or at the angle of the scapula. Frequently in the beginning these signs consisted of rales of a peculiarly characteristic quality—often only heard on forced deep inspiration—when they would burst in a shower

of crackles close to the stethoscope in one of the regions mentioned. A case suspicious of lung involvement was always approached from the back.

The percussion note went through all its variations from impaired resonance to flatness—patchy areas of dullness alternating with areas of hyper-resonance—dullness involving an entire lobe or more than one lobe. Frequently no definite change in the percussion note could be elicited. All variations in breath sounds and rales were found.

Cyanosis was a feature of the disease, marked cyanosis was a bad prognostic sign. Fulminating cases presented a picture of a peculiar deep cyanosis, at times almost black—of the face, hands and often the entire body.

The Leucocyte count in 514 recorded cases was above 8000 in 254 cases sometime during the course of the pneumonia and below in 260. A normal count or leucopenia was the rule in the beginning, as the pneumonia progressed the leucocytes increased. With a distinctly involved lung a decided leucopenia was a bad prognostic sign. Early high leucocyte counts were against an influenza pneumonia.

The systolic blood pressure recorded in 275 cases was above 100 in 238, below in 37. The diastolic was uniformly low.

The urine showed albumen in 42% of recorded cases.

Fluid in the chest was present in 2.9%. A report of which is given in detail in the surgical section.

There were sixty pregnant women admitted with influenza in the service of Dr. Sperry.

Forty-two of these had pneumonia, and eighteen were simple uncomplicated influenzas. Of the forty-two with pneumonia nineteen died and twenty-three recovered. Of the simple influenza cases none died, the mortality in the pneumonia group was 45.6%. The mortality in the whole group was 31.2%.

Thirty-six (36) of the sixty cases or 60% went through the disease without any interruption of the pregnancy. Some of the patients died but with the foetus in Utero.

Of forty-two pneumonia cases, twenty-four were uninterrupted, or 57.5%. Of eighteen simple influenzas twelve cases were uninterrupted or 66.6%.

Eleven of the uninterrupted cases died, and thirteen recovered, the average duration of the pregnancy in these cases was six and one-half months.

Of the uninterrupted cases several are of special interest. One case went through a severe pneumonia and left the hospital well, carrying a full term live foetus.

One after a very severe pneumonia, was delivered during her convalescence of a full term eight-pound baby. An instrumental delivery was done in this case as soon as the cervix was dilated. Mother and child both did well.

One post-mortem Caesarean Section at eight and one-half months resulted in a live baby which lived for several weeks.

One mother who was admitted in a comatose condition, and who died next day, was delivered by accouchment force of a live healthy baby which lived.

Pregnancy in eighteen of the sixty cases was interrupted by the effect of the disease. Twelve of these cases were in the pneumonia group showing a percentage of 29.4% miscarriages or premature labors in pneumonia.

Six out of eighteen simple influenza were interrupted (33.3%) showing a larger percentage of interruptions in influenza than in pneumonia.

In the interrupted cases there were nine premature infants, six of whom lived, and were discharged from the hospital in good condition. One of these born at the eighth month weighed only two and a quarter pounds but left the hospital five weeks later in good condition weighing nearly four pounds.

There were only three cases admitted who had not passed the third month of pregnancy and there was no death in any case under the fourth month. Many of the cases came in moribund and died a few hours after admission.

The most interesting fact noted in the laboratory by Dr. Agnes Walker was the large percentage of positive Wassermanns obtained on cases of influenza at the height of the disease or early in the convalescence. Of 250 consecutive tests 16½% gave a three plus reaction with the acetone-insoluble-fraction antigen and modified Wassermann technique; 7% were two plus and 24% one plus, . . . the remaining 52½% being negative. In nearly every instance the weaker positives were found to be three plus by the Hecht-Weinberg-Gradwohl method. Of 200 routine hospital Wasserman tests performed just prior to the appearance of the epidemic 20% were one plus to three plus, and a similar number of routine examinations after the influenza epidemic had subsided, gave 12½% positives of varying degree. Thus the total number of positives of all degree obtained on influenza patients was 47.5%, a very marked increase over the 16% which appears to be about the normal average for the hospital at other times with the same reagents and technique.

As it has been impossible to obtain blood specimens from these patients since they left the hospital, no further tests have been made to ascertain their present condition, but it seems most improbable that over 47% of influenza patients were syphilitics, especially as in few instances were there definite histories or clinical signs of lues to substantiate such belief. There appear to be only two possible explanations of the phenomenon—either the victims of latent syphilis are more susceptible to influenza than the non-syphilitics, or influenza causes a temporary non-specific or false Wassermann reaction—and of the two theories, the second seems the most probable.

Because of the hemorrhagic type of this disease

it was suggested that the coagulation time be determined—this was found to be within normal limits in 100 cases.

The total number of patients admitted to the hospital was 3422.

Total number of deaths 977.

Percentage of mortality 28.6.

In twenty-four autopsies performed by Dr. Ophuls the findings in all cases were so similar that it was possible to summarize them in a general way as follows:

Practically all cases showed a very intense, general cyanosis which was associated with edema only in one instance. An acute inflammatory congestion of the conjunctivae was distinctly noticeable in many instances and in some cases there was present an acute purulent conjunctivitis.

The mucous membranes of the upper respiratory tract including nose, naso-pharynx, pharynx, larynx, trachea and the larger bronchial tubes were intensely congested in all cases. The congestion was so intense in many cases that the mucous membranes exhibited a very dark red, almost black color. Microscopically there was a marked dilatation of the capillaries, some hemorrhages and at times, particularly in the bronchial tubes, a very marked infiltration of the mucous membranes with lymphocytic cells. The mucous membranes were covered with foamy, bloody fluid from the pulmonary edema in the more acute cases. In the later stages of the process, there was found considerable pus which, in the bronchial tubes, showed a marked tendency to coagulate, so much so that many of the small bronchi were frequently filled with plugs of coagulated mucus and fibrin, and in some instances false membranes had developed in some of the bronchial tubes.

There was an extensive consolidation of the lungs in all cases and the initial changes in the lungs were those of an exceedingly intense congestion and of a hemorrhagic edema which was later followed by a moist hemorrhagic consolidation which often involved large areas in the posterior portions of both lungs. This moist consolidation sometimes ended in a more definite hepaticization of the tissue of a red or sometimes more grayish color; in other instances there developed definite areas of broncho-pneumonic consolidation about the infected smaller bronchial tubes. The consolidation in the lungs was followed by abscess formation in three instances and in one case there was in one of the lower lobes, a definitely more chronic form of pneumonia with fibrous thickening of the septa, which had terminated in gangrene.

The inflammatory process in the lungs was quite characteristic and different from what one sees in any ordinary cases of pneumonia. In many instances it was difficult to say whether the conditions should be described as a confluent broncho-pneumonia or as a peculiar type of lobar pneumonia. I do not think, however, that the process was sufficiently similar to what we observe in ordinary cases of lobar pneumonia to be identified as such. That these differences were not due to

the varying nature of the secondary infectious agents was shown by the fact that in many instances, there were present in the same individual areas of acute hemorrhagic edema, irregular diffuse consolidations and typical broncho-pneumonic patches.

The pleura was involved in a great many instances, altogether 15 times in the 24 cases. In some of the cases the pleura was the seat of a dry hemorrhagic pleurisy but in the majority of them the exudate was purulent in character and eventually developed into a typical empyema. In three instances the pleural infection was associated with acute pericarditis.

The heart did not show any lesions in any case of this series.

The spleen was very little affected; it was slightly enlarged and soft in three cases.

The kidneys showed the effect of the disease very markedly in 17 out of the 24 cases. They were very much congested, swollen, the cortex very wide and opaque, and microscopical examination revealed very marked parenchymatous degeneration of the epithelium, which in some cases, had terminated in necrosis. In one of the kidneys there were many hyaline casts.

The liver was also swollen, congested and degenerated quite frequently. In five cases the microscope revealed definite central necroses. In this connection it may be mentioned that four of the twenty-four cases developed some jaundice which, in one case, was quite severe. These four cases were not the ones, however, that showed the most severe histological lesions in the liver.

There was also present quite frequently, a marked waxy degeneration of the muscles which, in some cases, was associated with considerable hemorrhage.

The brain and meninges were intensely congested in all cases in which the brain was examined; in one case there was found a very early stage of acute meningitis due to diplo-streptococci. Influenza bacilli were found in 16 out of the 24 cases, but in 10 of these cases they were present only in very small numbers. In five cases they were found in the bronchial tubes in considerable numbers and in two cases in the infected parts of the lungs. In the infected pleura they were found only twice and then in very small numbers. Otherwise there were present various types of streptococci of diplo-streptococci and pneumococci.

It was not possible to identify all these organisms culturally but enough was learned to make sure that these secondary invaders varied a great deal in different cases. We have had one case of staphylo-coccus infection with development of abscesses in both lungs.

It was quite interesting to observe in the smears in some cases that in spite of the presence of a very acute inflammatory reaction in the bronchial tubes and in certain parts of the lung tissue, there were present only very few organisms of any kind.

Our conception of the process, based on these findings, is that the initial lesions of the disease are due to the rapid invasion of the entire respira-

tory tract by some, as yet unknown, virus and that the influenza bacilli and the various forms of cocci merely perform the role of important, but distinctly secondary, invaders of the diseased tissue.

TREATMENT:

In the determination of the effect of any treatment one must take into consideration the protean character of the pneumonias; an opportunity was had to judge of comparative results as each ward was in charge of a different attending physician. Although it was necessary to institute a general plan of procedure no objection was made to individual treatment in the different wards. An opportunity was thus had of judging the comparative merits of the different forms of treatments.

It was found that the charts and results of an enthusiast in some form of treatment were duplicated and paralleled by the charts and results in other wards with treatment of an entirely different character.

The following was the general plan of treatment:

Absolute rest in bed. Avoidance of chilling. Cold sponges were not used. Aspirin was given for relief of initial pains and headache. The cough was best controlled by heroin and codein. Mustard pastes to the chest gave great relief and were of benefit.

Fluid by mouth and sodii bicarb. 2% and glucose 2% were given rectally by Murphy drip method.

Salines and colon flushes were used to cleanse the bowels.

Cardiac and circulatory stimulants were used both early and late. Digitalis, strychnine, caffeine, adrenalin, camphorated oil in large doses and strophanthus.

Where there was evidence of much fluid in the bronchi atropine in large doses seemed to have an appreciable effect in lessening the fluid.

The following were used:

Leary vaccine in 68 cases—no appreciable effect.

Venesection—alone or followed by intravenous bicarbonate soda and glucose 2%—done on critically ill patients of the fulminating type. Temporary improvement, no permanent effect.

Leucocytic extract—no appreciable effect.

Convalescent serum—11 cases—not sufficient number to arrive at any conclusion. Discontinued on account of the number of positive Wassermanns.

In the treatment the toxemia was considered the most important factor. Results seemed directly dependent on the severity of the toxemia. That any form of treatment had a definite specific effect in influencing or aborting the disease was not determined.

That any form of cardiac stimulation applicable to all cases gave appreciably better results could not be determined. Death was not due primarily to cardiac failure.

The most important single measure was rest in bed. Early to bed and late to rise.

A CONSIDERATION OF THE METHODS USED IN THE CONTROL OF INFLUENZA.*

By W. H. KELLOGG, M. D., Secretary and Executive
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Intelligent measures for the control of any communicable disease must of necessity depend upon a knowledge of the cause and mode of spread of that disease. We have learned much regarding influenza during the brief period that has elapsed since its appearance in pandemic form about September of last year, and the outstanding feature of our investigations and experiences with this disease are to the effect that we know virtually nothing at all about either its cause or its mode of spread.

The most generally accepted view regarding its mode of transmission is that it is droplet borne and in the absence of any definite knowledge to the contrary this is, of course, the most plausible theory. Its rapidity of spread in some instances is so great that it is difficult to reconcile it altogether with this view, but until more definite information is available it will be necessary to consider this probability in any control measures that we may institute.

Among the measures that have been very generally applied and which I will mention briefly before considering any one of them in detail are:

1. Reporting of cases.
2. Limitation of opportunities for contact and general association among persons, and this measure includes:
 - (a). The isolation or quarantine of cases.
 - (b). The closing of public gathering places, such as schools, churches, theatres, moving picture shows, public dances, etc.
 - (c). The regulation of the hours for opening and closing of factories to prevent the crowding of street cars, the suppression of music in cafes;
 - (d). The wearing of gauze face masks.
3. The institution of hospital, medical and nursing facilities and the various sociological activities made necessary for the care of the stricken by any disease affecting such a large percentage of the population.
4. Vaccines.
5. Education of the public in measures of personal hygiene and prophylaxis.
6. Enforcement of laws prohibiting expectoration in public places and laws requiring the sterilization of drinking utensils.

Having passed through our epidemic we are now in a position to reflect upon the various methods that have been used and to attempt an evaluation of the various control measures. For the purpose of arriving at an intelligent conclusion concerning any particular measure we must have intelligent and efficient means for gathering together the epidemiological data and arranging it in such a manner that conclusions can be drawn. In this work

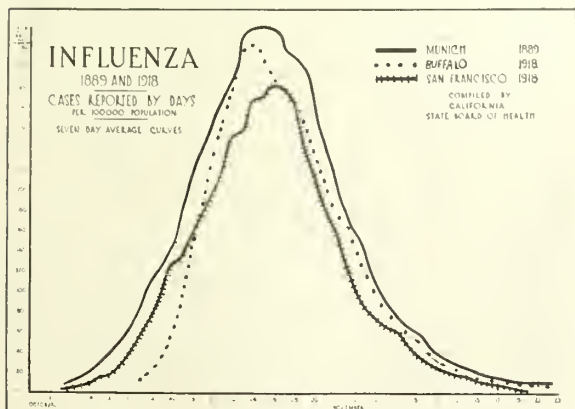
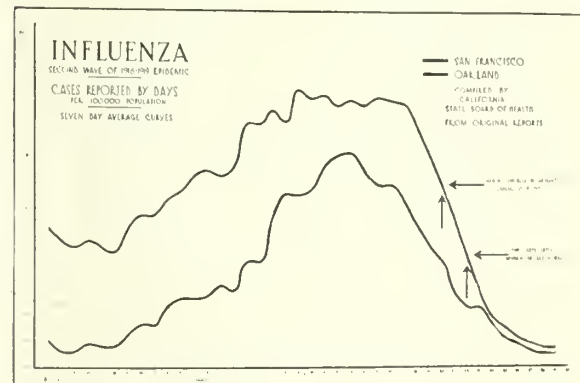
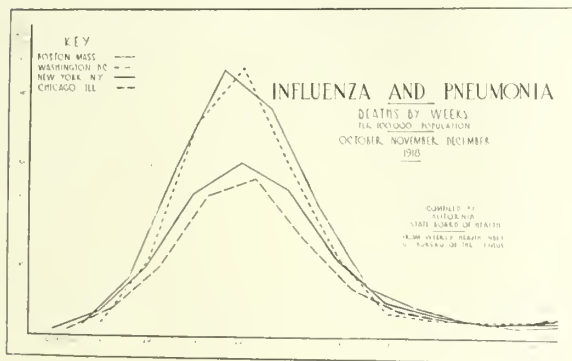
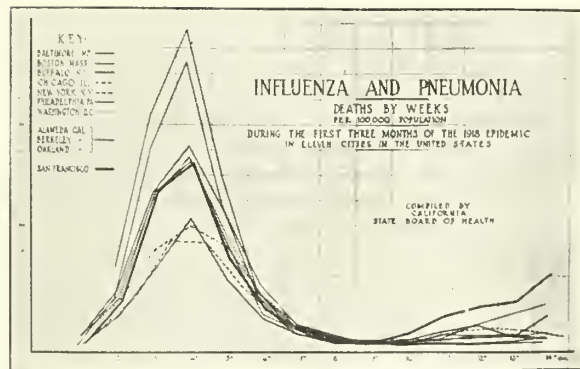
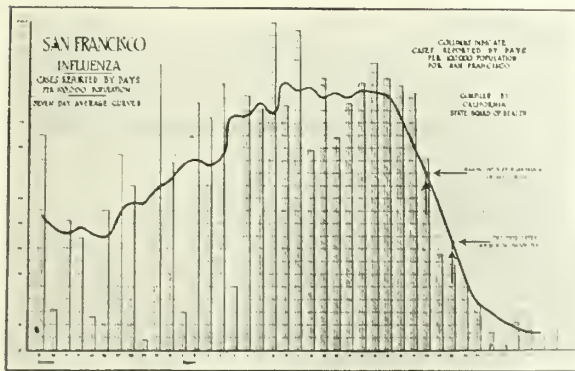
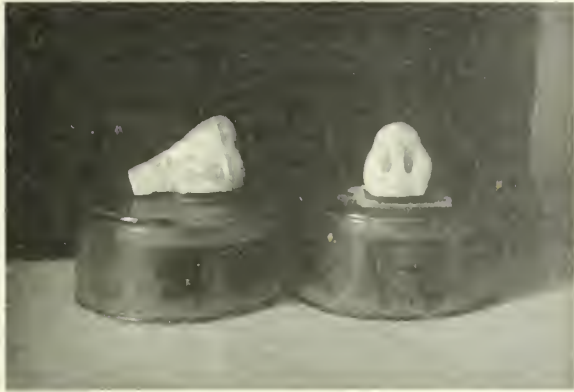
nothing gives us at once such a comprehensive view of the facts as does the graphic chart showing the rise and fall of the epidemic, both in cases and in deaths per hundred thousand population and correlated with the application of the measure in question.

As an example of what conclusions may be drawn in this manner, we will take the matter of closing and see what deductions can be drawn from an inspection of Chart No. 1. This chart shows the mortality from influenza in terms of deaths per hundred thousand population by weeks in four cities, Boston, Washington, New York and Chicago. It will be noted in comparing the graphs of Boston and Washington that they are very similar. Boston being the first city to experience a serious epidemic from influenza during the present pandemic was taken unawares and did not develop any control measures such as the closing of public places, until the height of the epidemic was reached. Washington, on the other hand, with Boston's experience before it, closed everything tightly before it was known that a dozen cases were in that city. The chart shows that there is no difference between the two cities in the duration of the epidemic nor in the death rate. Furthermore New York city had a lower incidence of infection as shown by the number of deaths occurring and this city closed nothing at all, not even the moving picture shows. The city of Chicago, which has approximately the same curve as the city of New York, and is also lower than either Boston or Washington, may also be said to have instituted no closing measures worthy of mention. Moving picture shows were allowed to run with the display of caution signs against coughing and sneezing.

The value of graphic charts of this character is also shown in cut No. 2, which illustrates very strikingly the remarkable uniformity of the epidemic of influenza in the length of time over which it extends, which duration appears to follow some definite law which is not disturbed by any of the measures of control which have been applied. It will be observed that in every one of the eleven cities shown, the duration of time from the first sharp rise to the subsidence to approximately the base line is nine weeks.

Mortality statistics give much more dependable information in influenza than do the morbidity figures for the reason that influenza is a disease that is not characterized by any certain methods of diagnosis and mild cases, which are most difficult of recognition, are very common. It is very evident that under these conditions the accuracy of reporting is bound to vary greatly with circumstances having to do with the state of the public mind, which includes that of the medical profession, regarding the prevalence of the disease in any given community. This influence is shown very definitely in all communities where a comparison is made by means of log curves showing cases and deaths. When the epidemic is on the increase, and the popular alarm and excitement is at fever heat, reporting is much more thorough and doubtless many cases not influenza are reported as such. On the other hand, when the epidemic is definitely known to be declining, many

*Read before the Forty-eighth Annual Meeting of the Medical Society, State of California, Santa Barbara, April, 1919.



cases of true influenza are not reported or even considered as such for the very excellent reason that the majority of cases of this disease cannot be definitely and certainly diagnosed by any one, and the tendency under these circumstances of decline is to give the benefit of the doubt to a negative diagnosis.

The conclusion which I have reached regarding the value of measures of closing, based upon the mortality curves of the different cities, is that the measure is of no value in the larger cities, but is one that should be put into practice in smaller towns and rural communities, for the reason that in the latter places closing measures mean actual limitation of human association, for when the public meeting places are closed there is nothing

else for the people to do but remain at home, whereas, in the larger cities the closing of churches and theaters removes only a small part of the chance for association, and the crowding is increased in those places of congregation which cannot be closed, such as the sidewalks, department stores, lobbies of hotels, etc.

Vaccines have definitely proven to be of no value as a preventive measure by carefully controlled and carefully carried out experiments upon groups of persons known not to have been exposed previously to the infection. McCoy's experiment with the Rosenau type of vaccine in the Napa State Hospital, and with the straight influenza vaccine in a Massachusetts institution definitely disposes of vaccine as a preventive measure worthy of consideration. In the Napa experiment every other person in the institution under the age of forty years was given vaccine, the number in each group, vaccinated and unvaccinated, being about four hundred. Fortunately for the outcome of the experiment, and unfortunately for the inmates influenza made its appearance in the institution about ten days after the administration of the vaccine. The result of a trifle more, both cases and deaths, in the vaccinated group, was a demonstration that is final and capable of only one conclusion.

Gauze masks were very generally used among the cities of California and were popularized by their first application on this coast in San Francisco.

Before taking up the consideration of the evidence for and against the mask, attention is directed to Chart No. 3, for the purpose of explaining the seven-day average method of drawing a morbidity curve. An understanding of this method is necessary for the case rate will be used in presenting some of the facts of the use of the mask for the control of influenza. The columns represent a very common method of depicting the progress of an epidemic in terms of total cases or of cases per hundred thousand population. It will be observed that there is great irregularity in the height of these columns due to influences affecting the reporting, such as Sundays and holidays. There is ordinarily in case reporting a seven-day periodicity in error, due to lack of reporting on Sunday. Consequently, the seven-day average represented by the curve, which crosses the columns on the chart, is used as giving a picture that is much clearer, as well as being more accurate. The number of cases, as represented by the height of the curve on any one day is the average obtained by adding the reported cases for the preceding three days and the succeeding three days to the day in question and dividing the result by seven. This is done for every single day on the chart. Consequently, the case rate for each day has been made use of seven times in arriving at the rated figure for each of the seven days of the week.

That this method is accurate as well as more graphic, is proven by adding up for any given period the indicated case rates for all the days when it will be found that the sum is the same as the addition for the individual days as depicted by the column method.

When San Francisco determined to enforce a masking ordinance, the experiment was looked forward to with a great deal of interest and in the belief that the universal wearing of masks would exert a very powerful influence in the control of the disease, but also with the expectation that it would not prove feasible to enforce the universal wearing of masks. Contrary to expectation, the masks were worn cheerfully and universally, and also, contrary to expectation, of what should follow under such circumstances, no effect on the epidemic curve was to be seen. The reason for this failure, proof of which will be shown shortly, I felt inclined to explain by faults in its application rather than by any basic error in the theory of its use. Consequently, Bulletin No. 31 of the State Board of Health brought out the fact that where it was sought to control influenza by compulsory mask wearing certain obstacles developed. These were:

First, the large number of improperly made masks that were used.

Second, the faulty wearing of masks, which included the use of masks that were too small, the covering of only the nose, or only the mouth, smoking while wearing them, etc.

Third, the wearing of masks at improper times. When applied compulsorily masks were universally worn in public, on the streets, in automobiles, etc., where they were not needed, but where arrest would follow if not worn, and they were very generally laid aside when the wearer was no longer subject to observation by the police, such as in private offices and small gatherings of all kinds. This type of gathering with social intercourse between friends and office associates seems to afford excellent facilities for the transfer of the virus. If, as seems probable, the virus is droplet borne, this form of contact where people are conversing with one another would, of course, be much more dangerous than crowd association of strangers, even under the circumstances obtaining in public gatherings.

That the mask was not proving of value in controlling the influenza was a conclusion reached after studying the mortality curve of San Francisco. The final evidence against the value of the mask as a prophylactic measure was obtained in the course of what amounted to a perfectly controlled experiment on a large scale, which is graphically illustrated in Cut No. 4. This chart, which shows a seven-day average curve for the cities of San Francisco and Oakland for the second wave in December and January, presents a picture, from which the unmistakable conclusion is reached that no influence whatever is to be attributed to the mask. As in the case of the vaccine experiment of McCoy, we have here a perfectly controlled experiment in that San Francisco and Oakland are virtually one city, one part of which, San Francisco, applied the mask, during the second wave, and the other part, Oakland, did not. The upper curve is that of San Francisco and the upper arrows point to the place on the line, at which masking was enforced and the lower arrow indicates the point forty-eight hours later, or the minimum incubation period of the disease, and the

earliest possible date at which an influence could be expected on the rapidity of the fall. As a matter of interest, another chart is shown which gives a seven-day average curve in cases per day per hundred thousand population for the cities of Buffalo and San Francisco in 1918, and the city of Munich in 1889. The absolute similarity between the former and present pandemic in the duration and height of case curve is very striking.

Although feeling convinced that the gauze face mask was not a proper measure for compulsory application to the general public in the control of epidemics, it was felt that definite information concerning the results that could be expected from the proper wearing of a properly made mask were desirable. Two methods are available for an investigation of this kind, one being a controlled experiment, such as the one described in the application of masks by the cities of Oakland and San Francisco, but to be of value the susceptibility of the persons concerned, their exposure to infection and the quality and mode of wearing of the mask must be known. Such an experiment can only be carried out in a contagious disease hospital where absolute control of all these conditions can be maintained and it is to be hoped that in the near future this will be carried out by some one having the necessary facilities.

The other method is by laboratory experimentation and a series of tests have been carried out in the State Hygienic Laboratory, the technical work being performed by Miss Grace Macmillan. Previously reported experiments of this nature have taken no account of the influence of the forcible aspiration of air through the meshes of the gauze. Consequently, the device shown in Figs. 6 and 7 was constructed, which consists of a nose made of paraffine attached over an opening in a glass jar, beneath the opening being placed a petri plate of nutrient agar and the suction apparatus being attached to the jar. Tests were made with a spray of a prodigious culture and with varying thicknesses and mesh of gauze. Very many tests were carried out using variations of this method and with various kinds of controls. It was determined that with a mask made of gauze of ordinary quality, 24x28 threads to the square inch, an efficiency of 38% was obtained with six layers, and 56% with eight layers. Using gauze of a mesh of 60x72 threads to the square inch, which is so fine that breathing would be difficult with more than two layers, it was found that five layers were necessary to obtain an efficiency of 57%, six layers for 47% and eight layers for 98%.

The possibility of conjunctival infection must not be overlooked. The conclusion from these experiments is that while gauze masks exercise a certain amount of restraining influence in the number of bacteria laden droplets capable of inhalation, the forcible aspiration of droplet laden air through the meshes of the gauze increases the number of colonies possible to obtain over the method previously used in testing of allowing the droplets to fall by gravity through the gauze. It is further concluded that the degree of efficiency that it is

possible to obtain has not been demonstrated by the experiments to be such to warrant their compulsory application for the checking of epidemics.

SOME CLINICAL FEATURES OF THE PRESENT PANDEMIC OF INFLUENZA AS COMPARED WITH THE PANDEMIC OF THIRTY YEARS AGO.*

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For every infectious disease, many complications have been described. In pandemics of influenza where such an enormous portion of the population is attacked, opportunity is afforded for a surprisingly large variety of complications. It would be utterly beyond the scope of a 15-minute paper to even itemize these numerous peculiarities of the influenza virus. Even Leichtenstern's masterly monograph of 200 pages in Nothnagel's System of Medicine, which probably is the most comprehensive survey of the great pandemic of 1889-91, barely touches upon a vast number of the influenza complications. The following observations are purely personal ones obtained through experience at the University of California Hospital and in private practice and I shall only dwell on a few features that attracted my attention during this time.

The fact that struck me most forcibly after studying Leichtenstern's work was the amazing similarity between these two pandemics. I say amazing advisedly because doubtless many of us were under the impression that our pandemic presented many extraordinary features. For example, it has been repeatedly emphasized that the present outbreak of the disease confined itself in the vast majority of cases to adults between 20 and 40 years of age, as though this were a new phenomenon; a great many of us expecting that the elderly part of the population would be most seriously affected. However, this was precisely the case in the pandemic 30 years ago. In fact, it would seem that we know but little more about influenza today than was known 30 years ago. This would appear surprising in view of the great developments that have occurred in medicine during these past 30 years, particularly in the elaboration of laboratory technic. We would hardly have expected much addition to our knowledge in the realm of pathology and perhaps not in clinical observation, but we were rather prepared to have advances in bacteriology, immunology and serology. Even this does not seem to be the case. Although the pandemic of 30 years ago ended with the strong impression that Pfeiffer's bacillus was the cause of influenza, nevertheless the writers of that time found streptococci, pneumococci, and other organisms and the more conservative authors very properly ascribed many of the complications and confusing pictures of the disease to the results of

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bara, April, 1919.

mixed infection. Particularly was this the case in respiratory manifestations, more especially pneumonia. Opportunity has been utilized at this time for vaccination and serum therapy which was prophesied by Leichtenstern; probably more spinal fluid examinations have been made which were not done 30 years ago, and it would seem that far more blood counts were done during our pandemic, but when all is said and done, one must admit that our knowledge is but little more than the clinicians possessed 30 years ago. Perhaps the strong suspicion that pandemic influenza is due to a filterable virus, and that Pfeiffer's bacillus, pneumococci and streptococci, play only a secondary, though important role, would seem to be the one outstanding contribution of the present pandemic. It is only fair to remark that the literature on the present pandemic is only beginning to be written; that a large number of our profession have been extremely busy with military service and the remaining part overwhelmed by the care of influenza patients and that the requisite leisure time for compiling observations, sifting them and reporting them has been exceedingly limited. The publications of the immediate future may possibly bring forth some important discoveries, but no announcement of their appearance has been made as yet.

Since, then, it is quite impossible to cover thoroughly even a small portion of the clinical manifestations of this disease, I shall select only a few features and compare their occurrence in the two pandemics. Leichtenstern made three great subdivisions in describing the clinical course of influenza. The most prevalent form of the disease was the respiratory form. Most frequent manifestations were tracheitis, bronchitis and the several types of pneumonia. Laryngitis, rhinitis, empyema and the effect upon tuberculosis were likewise noted. This great preference of influenza for the respiratory tract has repeated itself in the present pandemic and no further allusion to it will be made. The second subdivision based upon the frequency of its appearance was the nervous form and that is probably also the case in this pandemic, but since complications of the nervous system manifest themselves frequently only as *requelæ* rather than complications during the height of the disease, such manifestations will probably come into the literature within the next few months. However, delirium and maniacal excitement during the height of the fever, even to the extent of suicide, have been reported frequently during this pandemic and the various psychoses, euphoria and its opposite, melancholia and profound depression, are being noted more and more every day. Likewise the prevalence and persistence of neuritis are making themselves known, and whether this will be as frequent as it was 30 years ago remains to be seen. Encephalitis lethargica is again following upon the heels of the pandemic, as it did 30 years ago. The third subdivision made by Leichtenstern referred to the gastro-intestinal form of the disease, and our experience in this pandemic has disclosed a very fair proportion of these cases. It was interesting to

note how many of these patients complained exceedingly of nausea and vomiting, loss of appetite, and diarrhoea without any respiratory signs or symptoms whatever. A recent article by Beals, Blanton and Eisendrath deals with the abdominal complications of the influenzal pandemic, and abdominal pain, rigidity, peritonitis, subphrenic abscess and rupture of the rectus muscles are reported. During the present pandemic, many clinicians committed themselves to the opinion that the spleen was enlarged in the majority of the cases while others felt that this occurred only in rare exceptions. Curiously enough, this same diversity of opinion obtained 30 years ago and the conclusion was reached that this difference of opinion was due to considering the spleen enlarged when the area of splenic dullness was increased even though the spleen was not palpable. Cabot, one of the authorities in physical diagnosis, never considers the spleen enlarged unless it is palpable and upon this basis, it is probable that the spleen in influenza is not enlarged in the great majority of cases. True, jaundice was but rarely observed in 1889 and this seems to be the case again this past year. Several authors 30 years ago considered jaundice a diagnostic sign but based this idea upon a slight icteric tint of the sclera, but true jaundice was quite rare and was practically always observed as a toxic jaundice in fatal pneumonia. In about 250 cases of influenza that I studied personally only one case of jaundice was noted; this was extremely severe and was also a complication of a fatal pneumonia.

The temperature curves 30 years ago seem to resemble very closely those of the present pandemic. Most of them were 3-day fevers, a fair number 5-day fevers and a few 7-10 days and occasionally a malarial-like temperature and more rarely still a protracted typhoid-like fever curve was described. As an example of the latter condition, I should like to report briefly a case of a young dental student aged 18. His chart is represented in Figures I (a, b and c).

As you will note, he had a brief influenza temperature for two days, then was normal for two days, and then began with an oscillating temperature which continued for 3 days and then changed into a curve strikingly suggestive of tertian malaria. As it happened, he had had malaria frequently between the ages of 7 and 15 and, as a consequence, a palpable spleen, and we were therefore suspicious that his malaria might have been lighted up by the influenza. Parasites were patiently searched for during these days for many hours at a time and if it had not been for a stringent rule of the Medical Department that no cases be treated for malaria before the parasites be found, we would have been sorely tempted to administer quinine to this patient. It will be seen that after three such paroxysms his curve changed its character and he then proceeded to exhibit a temperature up to 102 and 103 every afternoon for somewhat over three weeks. During this time, every complication was searched for. Repeated blood cultures on many different media were made and were all negative. A lumbar puncture was done

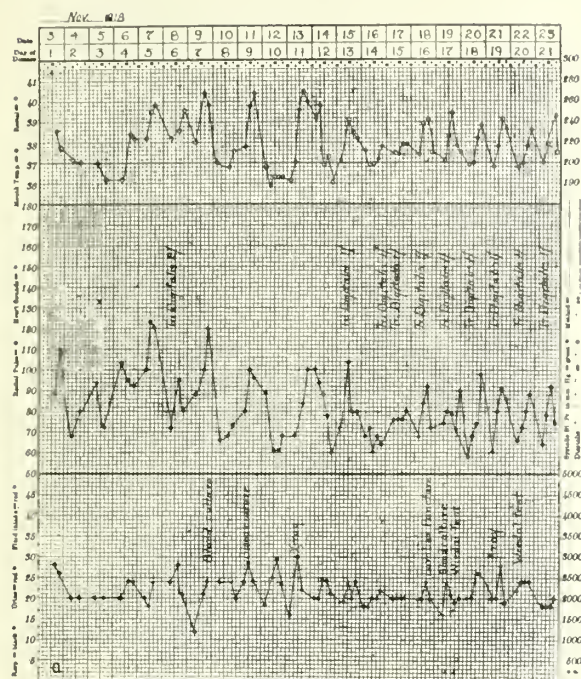


Chart I.

Figure I (a, b and c).

Case of influenza, showing temperature curve like tertian malaria for 6 days, and then protracted fever cure for 4 weeks more. No complications except purpura. Duration of fever, in all 40 days.

which was negative. His urine was cultured and was negative. His stools were cultured without result. His prostate and seminal vesicles were investigated. His sinuses and ears were carefully examined. X-rays of his chest were taken. All without result. A Widal was positive but this was explained as having no significance because he had had three injections prophylactically of paratyphoid, A and B, and typhoid, the last one two weeks before his influenza. Urine was injected into a guinea pig; X-rays of his teeth were taken; X-rays of his sinuses made; Von Pirquet tests made; exploratory puncture of his thorax was done even though no clinical signs were promising enough to hope for any result. It may, therefore, be considered that all clinical and laboratory means were utilized to account for this protracted temperature but absolutely none found. During this entire time, he had no signs or symptoms whatever and complained of nothing except a feeling of warmth when his temperature went up in the afternoon. Needless to add, his lungs were repeatedly examined and nothing found. After his temperature once became normal, it remained so and he has been perfectly well for three months and has regained his lost weight and vigor. The temperature remains unexplained therefore, except as an example of the protracted typhoid-like temperature described 30 years ago.

Three features that have attracted great attention during this pandemic are the marked cyanosis in those suffering from pneumonia, the tendency to hemorrhage and the high mortality in pregnant women. Cyanosis is mentioned in the pandemic of 30 years ago, but one gathers from reading the

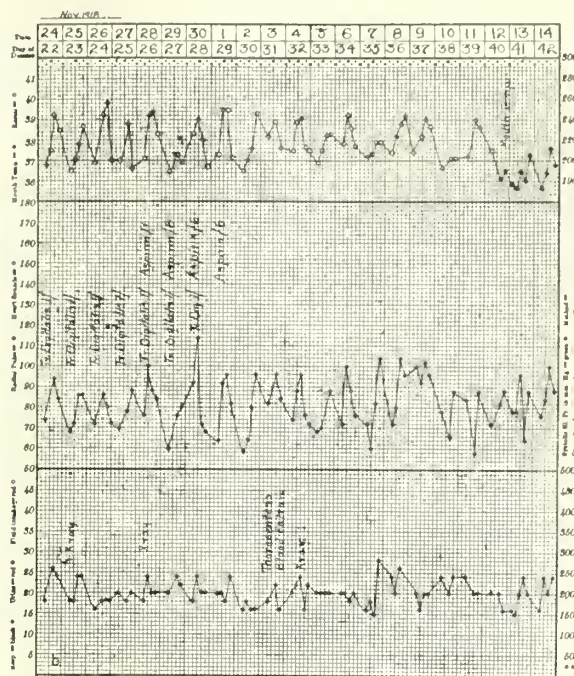


Chart II.

reports of that time that the cyanosis was not as extreme as was observed in this pandemic. It was repeatedly noted in our pandemic that patients had hemorrhage from the nose, lungs, stomach, intestines and uterus. Considerable interest was attracted to these happenings as though they were something new in influenza, but this same hemorrhagic tendency was emphasized 30 years ago and attention was called to the fact that the menstrual period was brought on ahead of time by the disease or that the bleeding was considerably more copious. The hemorrhagic type of pneumonia was also commented upon at that time. In fact, Leichtenstern notes "that one peculiarity of influenza well known since the oldest times (Wittich 1580) is the tendency to hemorrhage of various kinds." He calls attention to the frequency of hemorrhage from the nose, gums, pharynx, larynx, intestinal and renal hemorrhages as well as menorrhagia and metrorrhagia; further that the inflammatory processes in the serous and other membranes of the brain, in the intestine and stomach, in the middle ear and tympanic membrane have frequently a pronounced hemorrhagic character. Thirty years ago there were those who considered influenza as primarily a disease affecting the blood and that fundamental and deep-seated changes occurred in the blood during a very short time. Leichtenstern, however, thinks the marked tendency to hemorrhage is somewhat explained by the vasomotor hyperemia which characterizes all the inflammatory phenomena occurring in influenza. In my small series of about 250 cases, I had the opportunity of seeing examples of most of these varieties of hemorrhage. We had, of course, many cases of epistaxis, a few of bleeding from the ear, a great many of menorrhagia and metrorrhagia, one case of gastric hemorrhage, a case of intestinal hemorrhage and one case of purpura. Purpura is

mentioned as of frequent occurrence 30 years ago, but I have only heard of three cases in San Francisco, although there were probably more. One of these cases we had the opportunity to observe. See Figures II and III. This happened in the same individual whose temperature chart has been exhibited. The study of his blood showed a diminished number of platelets, but his prothrombin, fibrinogen, coagulation time and bleeding time were practically normal.

It was noted 30 years ago that influenza caused a great number of abortions and this was thought to be due to hemorrhages in the membranes and the statement was made that abortion occurring during influenza pneumonia made the prognosis considerably more grave. These hemorrhages occurring from abortion are sometimes of an alarming nature. The history of influenza from the oldest pandemic to the present day establishes the fact that influenza very frequently caused premature birth. This appears also from the marked decrease in the birthrate during the months following the pandemic. I believe that most of us had the impression that the recent influenza was alarmingly fatal to pregnant women. I have found no such assertion in the literature of 30 years ago except as above noted that it is apt to cause abortion. Most of us have heard statements to the effect that the average mortality in non-pregnant women has been about 6% and that the mortality in pregnant women has been anywhere from 50 to 90%. It would seem, however, that such impressions are exaggerated and are not borne out when a large number of statistics are collected. The Department of Obstetrics at the University of California called my attention to this shortly after our last outbreak. A recent compilation of 1350 cases of influenza in pregnant women by Dr. John W. Harris of Johns Hopkins also tends to substantiate the opinion expressed above that our notions of percentage of mortality are much exaggerated. He reports a total mortality of 25%, stating that 50% of the patients developed pneumonia and of the pneumonias 50% died, giving a total mortality of 25%. He also made the observation which coincides with that of 30 years ago that influenza is more fatal where the pregnancy has been interrupted than in those cases where it has continued. It is even questionable whether the mortality is as high as 25%, as it must be admitted that the above 1350 cases were the more severe ones that most impressed the physicians reporting the cases.

Two points of clinical interest that are at great variance, however, with the reports of 1890 are first, the mortality (at least in the United States), and second, the number of white blood corpuscles. The mortality from influenza has always been thought to be very low, especially when compared to the enormous number of people attacked, namely, .2 to .5%, whereas in the United States the mortality has averaged about 6 to 7% during the last pandemic and as high as 12-14%. Leichtenstern remarks that leucocytosis was the rule in 1889-91 and that statement has been reprinted in the textbooks since that time, whereas it was a

most striking feature of the recent pandemic that leucopenia was the rule. We invariably obtained a white count of between 2000 and 5500 during the first three days of the disease and, in fact, came to depend on this finding for a diagnosis in doubtful cases and differentiated in our own minds at least between common colds (rhinitis, laryngitis, tonsillitis) and influenza by the presence of either leucopenia or leucocytosis. The higher mortality and the finding of leucopenia seem, therefore, two distinctive features of this pandemic. However, it may be that blood counts were not done as often 30 years ago during the first few days but postponed until the disease became serious and pneumonia supervened, which would explain the prevalence of leucocytosis 30 years ago. For, with the appearance of pneumonia in the present pandemic, leucocytosis usually occurred.

Finally, a few words about a certain type of heart disease that results from influenza. The condition I refer to is somewhat similar to the irritable heart of soldiers and sailors that has received so much attention during the past few years. It presents the following features. Patients that seem to be recovering normally from influenza rather suddenly at times begin to suffer from tachycardia, some precordial pains, weakness, and exhaustion after the most trivial exertion. The pulse rate will range from 100 to 160 and this even when the patient is absolutely at rest in bed. This condition continues for weeks and months and is exceedingly obstinate to every form of therapy. Digitalis, bromides, rest cure, X-ray treatments to the thyroid gland, ice pack to the heart and many other measures are of absolutely no avail. It is exceedingly stubborn in its persistence, as I have had occasion to note in 3 cases under observation; one in a man of 50 years, one in a woman of 45 years and one in a young nurse of 20 years, where the tachycardia and other signs just described have persisted for 5 to 6 months and seem but little better today than they were six months ago. On examination, the heart, as a rule, shows but little evidence of disease. There are no signs of endocardial involvement, sounds are normal in clarity and strength. The size of the heart is usually normal and if it were not for the pulse rate, no objective sign could be found and the individual might be readily considered to be neurasthenic. The weakness of these patients is extreme. The man of 50 to whom I refer was a remarkably strong individual for his age before attacked by influenza. He can walk now on the level very slowly for a few blocks but becomes easily fatigued and then is pathetically weak. The woman of 45 has been unable to attend to any of the ordinary duties of the household and, in fact, has spent the greater part of the last few months in bed. The young nurse of 20 has recently attempted to return to her duties but is unable to continue with even the lightest sort of work and will undoubtedly have to cease her training as a nurse.

I examined her as recently as April 3 and her pulse after sitting quietly for 15 minutes was 150. We seem as helpless in the face of this condition

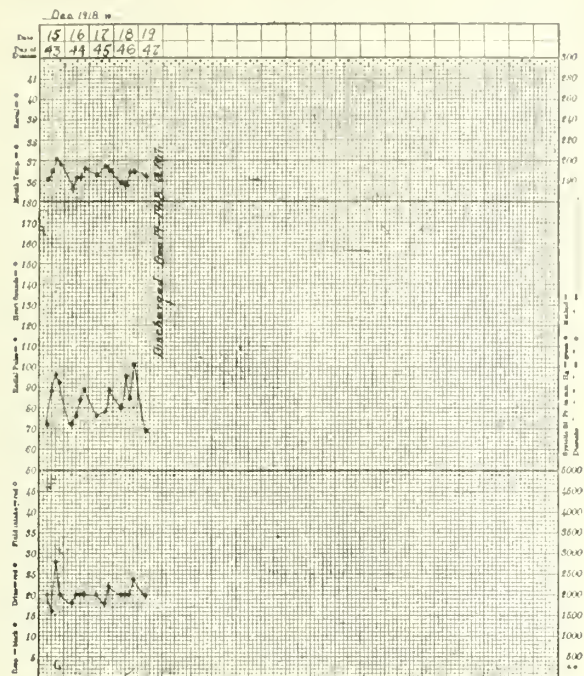


Chart III.

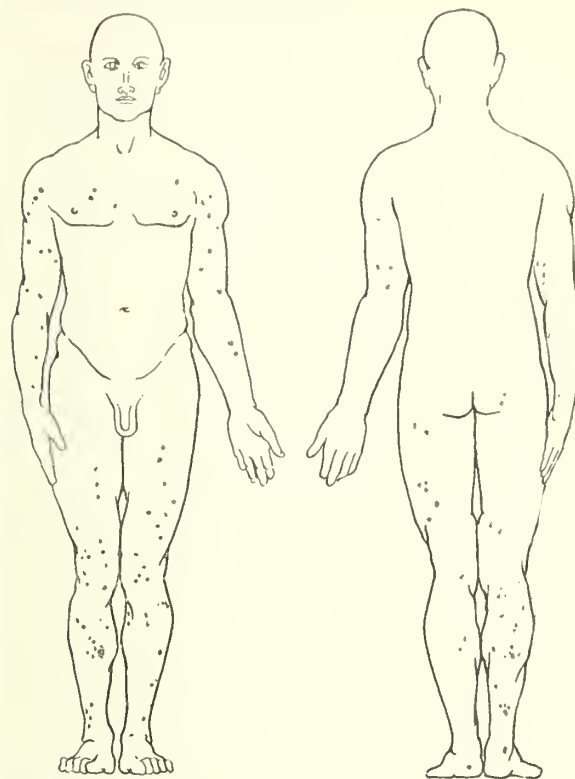


Figure II.

Case of influenza with purpura, showing distribution of purpuric lesions.



Figure III.

Same case as Figure II, showing purpuric lesions on right leg.

as were our predecessors of 30 years ago. The same heart weakness is mentioned by Leichtenstern as follows: "Influenza is frequently followed by serious, long continued and persistent functional disturbances of the heart of a neuropathic and myopathic origin. We frequently saw vigorous people in the prime of life who some weeks after recovery from an attack of influenza complained of shortness of breath, attacks of angina pectoris, palpitation of the heart and inconvenience, in whom there was an occasional marked tachycardia and no other signs of cardiac affection could be found." He thinks that occasionally there were changes in the heart muscle but feels that the majority of these cases have a nervous origin and are due to the influence of the influenza toxin on the nervous mechanism of the heart and, in support of this view, he mentions the transitory character of many of the cardiac disturbances and their acute occurrence, the arrhythmia in individuals with apparently quite healthy hearts; also the fact that with these cardiac manifestations, even when chronic, he saw no signs of disturbed circulation, as congestion of the liver or the kidneys, or anasarca, which could hardly be absent with degenerative processes of the heart muscle. In favor of this neuropathic origin of these severe cardiac manifestations after influenza is the fact that frequent post-influenzal neurasthenia often seems to have a cardiac basis in that it is accompanied by marked subjective and objective cardiac manifestations. Some of the authors who have written extensively on the irritable heart of soldiers, in many respects a very similar condition, try to ascribe the tachycardia and other symptoms to over-activity of the thyroid gland, a sort of Graves' disease. The nurse referred to reminded us also of this possi-

bility even though she had no goiter and no eye signs and she received, with this idea in mind, several X-ray exposures of her thyroid gland, but with absolutely no improvement.

There rather fragmentary clinical observations which are selected more or less at random would seem in a general way, therefore, to demonstrate that the present pandemic has been a fairly complete replica of the pandemic of 1889-91. It has given an opportunity for an extensive trial of vaccination and some serum therapy which was not possible 30 years ago, but the conclusion which it seems we must make is that our knowledge of the clinical course of influenza and our methods of treatment are the same and no more than they were 30 years ago, with the exception—that we can establish leukopenia as a characteristic sign of influenza in the early days of the disease; and that like dengue, a very similar infection, a filterable virus will probably be discovered as the etiological agent of influenza.

THE TREATMENT OF POST-INFLUENZAL PNEUMONIA IN AN ARMY HOSPITAL.*

By W. W. ROBLEE, M. D., Riverside, Cal.

The Influenza epidemic threw a sudden and immense strain upon the Army hospitals. Because of the concentration of the men in barracks, the spread of the disease, once it was introduced, was rapid and apparently uncontrollable. It was my fortune to be Chief of Medical Service at the Embarkation Hospital at Newport News, Virginia, at that time. We received patients from our local camps, troop trains, Army transports and the Merchant Marine. The ambulances were busy day and night transporting the sick, and oftentimes dying, soldiers to us for care. The epidemic ran its course in six weeks, but those were weeks of strenuous endeavor on the part of the entire hospital staff. During the month from September 20th to October 20th, 623 cases of Pneumonia entered our Service. There were 161 deaths, giving us a mortality rate of 25.8 per cent.

As a result of our experience with these cases and over 800 Pneumonia cases preceding the Influenza epidemic, a series of 1500 in all, I would sum up the treatment of Pneumonia in one word, "*Individualization.*" It is absolutely essential that every pneumonia patient become known and watched by both surgeon and nurse.

When the seriousness of the epidemic manifested itself and it became evident that surgeons, nurses and enlisted men would become seriously taxed before it ended, measures were taken to cut unnecessary labor to a minimum. Paper work, reports, routine ward work, temperature taking, etc., were all reduced to the bare necessities of the case, in order that the sick men could have the undivided attention of the entire service. The most competent ward surgeons were placed in the pneumonia wards, and by order of the Commanding Officer were excused from all duty outside

the wards. A specially well qualified pneumonia expert was placed on night duty, in order that expert service might be given during the hours when it is ordinarily handled by an officer of the day, or night inspector, whose intentions may be good but, if perchance he comes from some other department, he may be helpless in the treating of these cases.

Specific Therapy. The sputum was typed after the Avery method in all cases. The Type I pneumococcus cases were given serum unless, as not infrequently was the case, a crisis came and the patient became convalescent before the laboratory findings had been returned to us. No other specific treatment was attempted. Our laboratory force was untiring in the effort to find the causative organism in this epidemic and we were nearly forced to the conclusion that no known organism affecting the respiratory tract could be given an ætiological role therein. Reports from other Army hospitals confirm our conclusion that the Influenza infection seldom, if ever, causes death, but that the mortality comes from secondary invasion by whatever organism happens to be present in a given locality.

An examination of 677 specimens of sputum gave:

Pneumococcus I.....	8.1%
Pneumococcus II.....	.3%
Pneumococcus III.....	0
Pneumococcus IV.....	58.4%
Streptococcus Viridans.....	32.2%
Streptococcus Hæmolyticus.....	.3%
Pfeiffer Bacillus.....	.3%

Bloodcultures from the living and cultures from post mortem heart's blood and lung punctures gave the same findings. With us, therefore, at that time Pneumococcus Type IV-Type I and Streptococcus Viridans were the secondary invaders. Fort Riley reports Streptococcus Hæmolyticus in large numbers. Camp Deven, the Pfeiffer bacillus, etc. With us, the bacteriological findings were practically the same as had been found in our pneumonia cases during the summer and early fall. There being no specific organism in this epidemic and knowing of no specific serum of proven curative value in the treatment of pneumonia caused by the organisms enumerated above, we did not feel justified in giving the "shot gun" mixtures so quickly and widely advertised by some commercial firms. We felt that the discomforts and debilitating effects of serum sickness, with subsequent sensitization to all sera, is not lightly to be recommended for any patient. As for the use of bacterial emulsions, vaccines, etc., for curative purposes in an acute infection they are theoretically and practically to be condemned. If by chance, a homologous strain is administered, it only adds to the toxæmia already present. As a prophylactic agent or as an aid to the development of immunity in a dragging, chronic condition, they may be of service in some infections, but those considerations certainly do not apply to a disease producing an overwhelming toxæmia such as occurs in pneumonia. We did not use blood serum from convalescent cases intravenously. A study of early reports

*Read before the Forty-eighth Annual Meeting of the Medical Society, State of California, Santa Barbara, April, 1919.

on this method of treatment did not convince us that better results were being obtained than was the case with us by our well-tested methods. To be safe and of service, the blood must be secured (1) from a patient who has recently had Pneumonia of the type from which the patient, who is to be transfused, is suffering; (2) a donor well enough to stand the loss of blood must be found; (3) his blood must not agglutinate that of the patient; (4) he must be free from latent syphilis, tuberculosis or other infective organisms; (5) the procedure must be carried out before the patient is in extremis. All of these considerations entail a burden of laboratory work that is impossible during the progress of an epidemic such as we have recently experienced.

Morphine: This point in therapy, we believe to be of prime importance. Small doses of morphine frequently given, and if necessary an occasional larger one, control restlessness, delirium and cough and thus conserve the strength of the patient. Many patients wear themselves out unless the sedatives are given. The old idea that morphine in some mythical manner locks up secretions (whatever that may mean) and that it causes an accumulation in pneumonia is absurd. The idea that the patient must be encouraged to cough up the secretion is wrong. A major portion of the material causing the consolidation in pneumonia is carried away by the circulation and is not expectorated via the bronchial tubes and trachea. The use of morphine is, in our experience, a life-saving measure.

Digitalis: Was given in a large series of cases, and the opinion that had been forming in our minds during our previous experience was confirmed. We concluded that it is of distinct value when dilatation is beginning or fibrillation present and as a prophylactic in the prevention of these conditions, but that it is of doubtful value for the gradually ascending heart rate and weakness of severe toxæmia. When given, it should be crowded until either steadying or block develops. The tincture supplied at this hospital could be given in four cc. doses every two hours until fifty cc. had been given, then in one cc. doses until the effect desired had been obtained, which is usually reached at sixty or seventy cc. We felt that camphor is more valuable as a stimulant in toxæmia than is digitalis; that it is somewhat sedative to the nervous system and has some probable value as a meningococcicide.

Salt Solution was given intravenously in a series of cases, and we feel that some patients were carried over the danger period by that means. It should not be used in most cases of bronchopneumonia. It simply adds to the work of the heart and increases the "water-logged" condition of the lungs. Its value, if any, is in selected cases of lobar involvement showing depression of body and mind. Salt Solution intravenously and whisky by mouth are then of real value.

Lactose in 5% solution was given intravenously to the slender, dry-skinned cases who manifestly had a small accumulation of fuel to carry them

through their time of stress. Bicarbonate of soda and glucose solutions were given freely, intravenously and by proctoclysis, to those who developed nausea and vomiting, on the theory that an acidosis probably was present. Our overworked laboratory force was unable to undertake investigations looking toward the settling of that point.

Turpentine stupes and soap suds enemas, with an occasional dose of pituitrin, were our chief dependence for abdominal distention.

Baths: After a large series of cases had been studied, we came to the conclusion that baths given for the reduction of temperature were of no value and were, in fact, often a detriment to the patient. A quickly given tepid sponge-bath once or twice daily, with as little disturbance of the patient as possible, was given and no attempt made to use other hydrotherapeutic measures.

Diet: Simple as possible. No effort was made to crowd the feeding during the acute stage of the illness. Fruit juices, to which plenty of sugar was added, milk and whisky were given if the patient did not object, and the free drinking of water encouraged. The use of alcoholic stimulants in pneumonia is a debatable subject. We used whisky very freely in some wards, none in others. As a final conclusion, we feel that it has three points of usefulness:

1. As a food and fuel supply in slender, dry-skinned patients.
2. As a sedative in delirious cases. Whisky given freely in many of those cases has a soothing effect and helped control the delirium. A gentle "jag" seemed to us to be of service in those cases and we do not believe that it in any way added to the toxæmia.
3. Small amounts, 15 cc. once in three hours, was a very grateful bracer to the average patient, especially the depressed, exhausted type. We are aware that these views do not correspond entirely with the theoretical conclusions as to alcohol and its physiological action, but given a patient whose vital reactions are modified by the toxins of a severe acute infection, we feel that practically we are justified in the above conclusions.

All serious cases, so far as possible, were treated on porches until convalescence was well established.

The complications in our Pneumonia cases during this epidemic were not numerous, but were very interesting. This we account for by the fact that the one organism for which the army early acquired a very hearty respect, the streptococcus hemolyticus, was practically absent in our locality during this epidemic. During the spring months, we had a very serious experience with it and it was occurring with increasing frequency during the last month of my service, December.

A few cases of empyæma developed, and our experience coincides with that of the other army hospitals. Costectomy should be employed in all cases which develop pus, but not during the stage of acute pneumonia or active pleurisy. If necessary to relieve the embarrassed respirations during that period or before rank pus develops, aspiration

may be performed. We did not employ lavage by Dakin's Solution. Our results were entirely satisfactory by drainage following costectomy done under local anaesthesia.

Twenty-six cases of meningismus occurred among our pneumonia patients. All gave a sterile spinal fluid and improvement in the nervous systems usually followed the puncture. During this time, we were caring for seven cases of meningitis in our meningitis ward, but as none were complicated by pneumonia, they will not be discussed here.

Otitis media and sinusitis were seldom seen and of mild character. No mastoids became involved. Here again, we believe the absence of streptococcus haemolyticus to have accounted for our escape from serious consequences.

Hemorrhages from nose, lungs, stomach, rectum and bladder were observed. No specific treatment was undertaken for the condition, as we did not feel that there was sufficient loss of blood in any case to jeopardize the patient's chance for recovery.

Pericarditis, endocarditis and post infectious myocardial weakness were remarkably absent. Most of our cases made a very prompt recovery and comparatively few were obliged, because of myocardial weakness, to remain in the hospital beyond the thirty day fever-free period which was our rule for the discharge of pneumonia cases. This, we again attribute to the absence of streptococcus haemolyticus during this epidemic. I do, however, want to stress the importance of the after care of the heart in pneumonia. We became convinced, after our experience during the winter and spring with certain type pneumococcus and streptococcus haemolyticus pneumonias, that toxic myocarditis was a sequel of these cases in a very large percentage of cases and that too little attention was given to it during convalescence by the average physician.

Figures given below, compiled from the record of our pneumonia convalescent ward for a series of 270 cases, studied between April 15th and August 15th, prior to the influenza epidemic, give myocarditis requiring special care and prolonged rest in 120, or 44.4%. The streptococcus haemolyticus was an active factor with a percentage of this total of 45.76. The following table, compiled by Lieut. W. M. Scott, surgeon in charge of this ward, gives the figures for the series. From April 15th to August 15th, 1918, there were 270 convalescent pneumonia cases admitted to the ward. Of this number, 120 had post infectious myocarditis as a complication (44.4%).

Type of Organism.	Number of Cases.	Per Cent.
Streptococcus Haemolyticus	55	45.76
Streptococcus Viridans	12	10.00
Pneumococcus Type I	15	12.50
Pneumococcus Type II	2	1.66
Pneumococcus Type III	1	.83
Pneumococcus Type IV	25	20.80
Streptococcus Haemolyticus and Streptococcus Viridans	3	2.50
Streptococcus Viridans and Pneumococcus Type I	1	.83
Not typed	4	3.33
Pneumococcus Type IV and Streptococcus Viridans	1	.86
Staphylococcus Albus	1	.86

Prolonged rest in bed often sixty or ninety days, followed by painstaking re-education and strength-

ening of the heart muscle by graduated exercises, is of prime importance and will save many a patient from life-long invalidism due to a permanently damaged heart caused by too early physical strain. I have seen hearts which were spread out in all directions and with murmurs at every arifice under this plan regain tone, reduce in size and the murmurs disappear. Incidentally, I might add that too much stress has been laid upon the dilated right heart in pneumonia. Dilatation, when it occurs, is due to toxic myocarditis. All chambers are involved and usually the left ventricle is much more spread out than is the right. Watch your pneumonia hearts carefully and you will find that I am correct.

We saw occasional cases of arterial and venous thrombosis, the abdominal syndrome simulating appendicitis or cholecystitis, psychoses, convulsions and subcutaneous emphysema, all of which required careful study and appropriate treatment, which I will not take time to speak of here unless requested to do so in the course of the discussion.

Subcutaneous Emphysema: This developed as a complication in seven pneumonia cases. The subcutaneous tissue of the neck, chest, abdomen, scrotum and thighs became involved in the order named. Four died. One of the cases that recovered had marked swelling and crackling upon palpation from neck down to both knees. The neck and chest in these cases became greatly swollen, the temperature did not run high and death, when it occurred, came from gradual circulatory failure. Subcutaneous punctures for culture purposes were made and no bacillus Welchii or other organisms were found. One case came to autopsy and air was found present in the pericardial sac and mediastinal space in addition to subcutaneous tissues. No ulcer or other pathological opening into the lung was found, but we are nevertheless of the opinion that the emphysema was due to leakage of air and not to gas bacillus infection.

PULMONARY CONDITIONS WRONGLY DIAGNOSED AS TUBERCULOSIS.*

By WILLIAM C. VOORSANGER, M. D., San Francisco.
Discussed by Dr. Hurwitz, Dr. Pottenger, Dr. Shortle,
Dr. Voorsanger.

The studies of recent years upon sputum cultures, particularly the work of Luetscher, the investigation upon the agglutination of various bacilli and particularly the more recent work in government laboratories and army base hospitals, have greatly upset conventional clinical methods of diagnosis and have made us realize that many pulmonary conditions which in the past we looked upon as tuberculosis were in reality something else. An internist recently made the statement that "tuberculosis men were responsible for diagnosing every pulmonary condition as tuberculosis." This might have been the case at one time, but I feel sure that every real "tuberculosis man" today undiagnoses tuberculosis as much as he diagnoses it. Sanitarium physicians have often made the

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statement that from 7 to 10 per cent. of cases entering a tuberculosis institution did not have tuberculosis. The best authorities and text books have constantly advised that, if possible, tuberculosis should be diagnosed before tubercle bacilli are discovered in the sputum—this contrary to the original teachings of Koch. As is well known, the reason for this is that, supposedly the presence of tubercle bacilli in the sputum indicates breaking down of lung tissue, and our object is plainly to clinically detect a lesion in its incipency, or inflammatory stage, before ulceration or necrosis takes place. Naturally, this theory, good as it is, led to many errors in diagnosis, since we began to depend too much upon the clinical picture of past history of malaise, cough, expectoration, night sweats and loss of weight. The pendulum swung too far the other way. The laboratory which first displaced the clinician was in its turn displaced. Now we are going to combine the two with, it is hoped, better results in diagnosis and the saving, as I will show later, of a considerable number of lives.

Pulmonary diagnosis was greatly advanced by the work of (1) Cole, Dochez and Avery in their epoch-making investigations in pneumonia, for they clearly demonstrated that there were four types of pneumonia and that proper sputum cultures would definitely show with what type we had to deal. The result was a vaccine curative for Type I, helpful in Type II and non-efficacious for Types III and IV. They also showed the prognostic value of careful sputum cultures in the fourth or so-called indeterminate type of pneumonia. I dwell upon the work of these investigators because what has been accomplished with pneumonia through intelligent laboratory work can unquestionably be accomplished in all pulmonary conditions.

Luetscher (2) in 1915, undertook the study of sputum to give us "wider knowledge of what lesions a given organism may produce." These cultures show that each organism may produce a variety of acute lesions. Particularly significant was the demonstration that the influenza bacillus and pneumococcus may produce chronic lesions extending over many years. Naturally, this has a tremendous bearing in proving whether lesions are tuberculous or not. Luetscher's work is unquestionably the beginning of a new era in pulmonary diagnosis because it makes the laboratory a real aid to the clinician; nor can it be expected that the latter can carry out this work himself; he must have at his command a properly equipped laboratory with trained workers. He should make a careful clinical examination—the laboratory gives him analytical and scientific information—from the two he should deduce a diagnosis. This statement seems hackneyed because we have for years made diagnoses in this way, but in pulmonary disease it takes on a new significance. To do the work required for modern cultural sputum examination requires laboratory knowledge of the highest character and few laboratories have the personnel necessary to give the clinician the knowledge he needs. This statement

takes on a new significance because the laboratory can give us more than a diagnosis—it can direct our therapeutic measures. We have always assumed that all bronchial asthma was incurable and have simply sent the sufferer to another climate or made him a narcotic habitue. However, Chandler Walker, of Boston (3) has shown that asthma can be differentiated into types of those sensitive to bacteria and those sensitive to proteins. Of 28 patients treated with vaccines of bacteria to which they were sensitive, 75% were relieved and 21% were improved. These vaccines included the *S. Pyogenes aureus*, diphtheroids and streptococcus. We cannot in this paper go into an extensive review of Walker's work. His most recent article, published in February, shows that of 150 non-sensitive asthmatics who were treated with vaccines, 40% were relieved and 20% were improved. This opens up a tremendous field for investigation, not only for asthma, but for all pulmonary disease.

The war has done much to clarify pulmonary diagnosis and therapy. Unfortunately, two great epidemics occurred. The streptococcus hemolytica scourge of 1917, and the influenza plague of recent memory. The great base hospitals of this country and Europe, manned by our best medical brains, thought they were dealing with an unusual epidemic of pneumonia until Cultural Examination proved that the pneumococcus was not the causal germ, but a hemolytic streptococcus.

At the last meeting of the American Medical Association held in Chicago, the section in general medicine devoted most of its time to the discussion of this epidemic. Reports of thousands of cases came in from various military hospitals all over the country. At this meeting Welch made the statement that "we must recognize in this condition a new disease and take measures to combat it if it occurs next Winter." But the "new disease" did not come back in 1918—instead, a new form of influenza with pneumococcus and streptococcus complications. It found us unprepared; we stood by helpless while hundreds of thousands died. Our drugs and vaccines were powerless. The camps, with their millions of inhabitants, again gave the opportunity for investigation of a large amount of concentrated material. Stone and Swift (4) reported observations on 15,170 cases of influenza, of which 2,624 had pneumonia. Opie (5) and his workers at Camp Pike, reported 12,293 cases of influenza, with 1,499 cases of pneumonia. The reports on the epidemics of 1917 and 1918, all over the country proved conclusively that we were treating pulmonary effects, the causes of which we did not quite comprehend. We thought we were dealing with pneumonia in 1917; we found out afterwards the real cause. We manifested our utter helplessness when Influenza raged and I doubt if there be any one bold enough to say that he even now thoroughly comprehends its etiology. We know that we have passed through no ordinary influenza epidemic; that an intensively toxic pneumonia was the cause of so many rapid deaths and that our sputum cultures demonstrated Influenza Bacilli, pneumococci and streptococci. And

still, a Commission from the best authorities stated that there was something about the etiology of this epidemic which could not be explained.

Nor have we explained why, in many cases, complications have arisen and are at this late date still arising. One hears on all sides the warning from physicians and health authorities that the epidemics of 1917 and 1918, particularly the latter, will greatly increase the incidence of tuberculosis. There can be no doubt that a certain amount of old, healed tuberculosis will be made active and that we will be called upon to treat these cases. I am convinced, however, from personal experience that many people are being stigmatized as tuberculous who have influenza and results, such as bronchitis, empyema, lung abscess and influenzal spots. These conditions will be taken up at length later. We know that the influenza bacillus may produce lesions indistinguishable from the tubercle bacillus.

In order to substantiate his own opinion that too much pulmonary tuberculosis was being diagnosed, the writer sent the following questionnaire to a few well known pulmonary authorities:

1. What percentage of cases admitted to your institution are non-tuberculous?
2. What percentage of cases with the usual symptoms of tuberculosis, particularly large amount of sputum, are tubercle bacilli-free?
3. What percentage of cases sent to you with the diagnosis of tuberculosis have you personally diagnosed as non-tuberculous?
4. What condition or conditions do you consider mostly confused with tuberculosis?

Answer from National Jewish Hospital for Consumptives, Denver, with 250 beds, handling incipient and moderately advanced cases, about 8% of cases are non-tuberculous, 10% of cases with usual symptoms of tuberculosis have tubercle bacilli-free sputum, 10% sent with diagnosis of tuberculosis have been diagnosed as non-tuberculous.

Lawrason Brown of Saranac states that 16% of cases admitted to the Trudeau Sanitarium are non-tuberculous. He finds thyroid adenomata one of the most frequent conditions confused with tuberculosis. Landis of the Phipps Institute states that the "conditions which are most often wrongly diagnosed as tuberculosis are those involving the bases of the lungs. For the most part these conditions are due to a chronic inflammatory lesion and are not infrequently associated with bronchiectasis. These mistakes have always seemed particularly inexcusable to me, in view of the well-established fact that tuberculosis in the adult practically never exists primarily at the base."

S. Simon, of the U. S. General Hospital No. 19 at Azalea, N. C., one of the largest tuberculosis hospitals in the country, states "that between 30 and 40% of the 2,500 patients admitted to the hospital since it opened a little over six months ago, were either non-tuberculous or had old and obsolete lesions which dated back to their childhood days and could not, by even the greatest refinement in diagnosis, be classed as clinically tuberculous."

Crouch, of the Woodmen's Sanatorium, states

that 11% of their admitted cases are non-tuberculous.

The histories of cases admitted to the writer's institution in the past five years, where but few cases are really incipient, still show approximately 16% tubercle bacilli-free sputum.

I realize the inaccuracy and futility of statistics.

The experiences, however, of men handling large amounts of tuberculosis material prove that too great a percentage of non-tuberculous individuals are carelessly diagnosed and treated or tuberculosis. It is a well known fact that in a certain percentage of people with tuberculosis no bacilli can be demonstrated in the sputum. I am convinced, however, that many a person with a lung abscess or bronchiectatic cavity has coughed himself to death under a mistaken diagnosis of tuberculosis, when a surgical procedure might have cured him, or at least prolonged life in comparative comfort. In the past two years a veritable



Case I. Lung gangrene and abscess.

deluge of articles have appeared on the differentiation of tuberculous and non-tuberculous conditions, principally from the pens of "tuberculosis men," showing that they are at last fully awake to the importance of diagnosing tuberculosis only when it is really present, and to the injustice of stigmatizing a practically well man with the diagnosis of this disease. I would go one step further and state that we should attempt to diagnose only active tuberculosis or, if you like, clinical tuberculosis, with symptoms, since probably 85% of all of us have passive tuberculosis! In no spirit of criticism, we believe that our Army Doctors have been a bit over-zealous in their diagnoses of pulmonary tuberculosis. The Government has built eight splendid sanatoria with a capacity of 8000 beds, in various parts of the country, to take care of returning soldiers and sailors afflicted with tuberculosis. But is there not something wrong when one of our most experienced pul-



Case II. Right lung abscess.



Case IV. Right lung consolidation (influenzal spot).



Case III. Abscess left lung.



Case V. Pneumonic consolidation.

monary experts states that 30 to 40% of 2,500 admitted cases were non-tuberculous? I have had numbers of men come to my office and show discharge papers reading "pulmonary tuberculosis" of an apex or lobe, who have absolutely no symptoms, with negative X-Ray pictures, but perhaps a little harsh breathing or a slight dullness. With all our present refined methods of diagnosis, indefinite clinical signs are really not sufficient. Lieutenant Colonel J. H. Elliott (6), Toronto, who had charge of a large military district with special reference to chest diseases, after two years' experience with many thousands of returned soldiers, makes this statement: "There is no doubt

that 60 to 80% of the cases returned from overseas as tuberculosis suspects, must be classified as not suffering from tuberculosis." We agree with A. Trasoff (7) that the most important error to be avoided in the diagnosis of pulmonary tuberculosis in the Army is the mistake of the overzealous in declaring a normal chest tuberculous. Few know the normal chest—hence the errors!

Fishberg (8) quotes Blomel as authority for the statement that 80% of the incipient cases in the German Sanatoria are not at all sick, or suffer from some other disease, namely, non-tuberculous apical lesions.

J. A. Miller (9) says: "Certain physical signs

in the chest may be susceptible of quite other interpretation than the temptingly obvious one of tuberculosis."

Gavin, Lyall and Morita (10) state that "Pulmonary tuberculosis is frequently a disease with a wealth of physical signs and a poverty of symptoms, while in chronic non-tuberculous infections, the reverse is true."

"Conditions usually confused with pulmonary tuberculosis are aneurysm, bronchial asthma, Bronchiectasis, Chronic Bronchitis, bronchial-pneumonia of long duration, chronic pneumonia, diaphragmatic pleurisy, echicococcus cyst of the lung, Empyema, foreign-body, gangrene of the lung, Hodgkins' Disease, Hyperthyroidism, Influenza, malignant diseases, pneumokoniosis, pulmonary abscess and pulmonary infarct.

In the writer's experience, all these conditions have occurred. Of particular interest is the case of a young man who was referred by his physician with the statement "After observing this patient for six months I have excluded every diagnosis but tuberculosis." This patient ran a cyclic-temperature of 6 days of fever reaching 104, and 12 days of normal curve, the cycle recurring with uncanny regularity. He had no symptoms of tuberculosis except this fever. He had a dull right apex and a few enlarged cervical glands. After six months' sanitarium observation, during which every possible laboratory test was made for syphilis, and relapsing fever, the patient was discharged as non-tuberculous. He died one year later from Hodgkins' Disease. The cases of hyper-thyroidism with temperature, loss of weight and a dull right apex are often seen in sanatoria and are called incipient tuberculosis. True, they improve under hygienic and dietetic regime, but they should not be stigmatized as tuberculosis. The scope of this paper will not permit of an analysis of all the above-named conditions, which are often wrongly diagnosed as pulmonary tuberculosis. We are more interested at present in a group of complications or sequelae of our recent epidemics, which may be classified, as already stated, under four headings, Bronchitis, Empyema, Lung-abscess and Influenzal spots.

(11) Gavin, Lyall and Morita report cases which they call chronic non-tuberculosis with the following characteristics: "Chronic cough and expectoration with periodic exacerbations, frequently with haemoptysis, extensive physical signs almost invariably affecting one of the lower lobes and strikingly little impairment of the general health, the infecting organism being most commonly the pneumococcus; less often the influenza bacillus, and still less the streptococcus. The influenza bacillus was the chief offender in 7 out of 8 cases reported."

J. A. Miller (12) classifies non-tuberculous diseases into:

(1) Sub-acute non-tuberculous pulmonary infection, in which the constitutional disturbances are moderate and of short duration, but in which the physical signs persist for six weeks to four months, but end in perfect recovery.

(2) A sub-acute type with recurrences in which the attacks are the same as in the sub-acute type, but with one or more recurrences at intervals of several months or years.

(3) A chronic type in which abnormal signs have remained fairly constant for a number of years.

The last two types of Miller's are the ones frequently diagnosed as tuberculosis without bacilli in the sputum, but with suspicious physical signs. It is well to remember that many physical signs in the chest may be given different interpretations than the easy and short-cut one of suspected or actual tuberculosis. Slight dullness, impaired breathing and rales, particularly if not over an apex, do not always signify tuberculosis, and the physiological difference between right and left apex cannot too often be emphasized. We must, if experience counts for anything, recognize a distinct pulmonary disease entity which is not tuberculosis and which perhaps has been called Bronchitis or Empyema, and which, for want of a better name, we call "non-tuberculosis." It simulates naturally the positive disease of which it is the negative, and the physician who treats it as tuberculosis should not be criticized too strongly. Besides, treating a chronic or even sub-acute pulmonary condition with rest, diet and fresh air, can only improve it.

When, however, we diagnose and treat pulmonary abscess and Empyema as tuberculosis, we do the patient an irreparable injury—we allow him to die of cough and expectoration which conservative measures will not help, but which radical surgery may cure. Three cases have come under my observation in the past few months which are here reported. These cases all had observation in good hospitals under good physicians and were sent with the diagnosis of pulmonary tuberculosis following pneumonia or influenza, because they had the classical symptoms of fever, cough, expectoration, haemoptoe and loss of weight.

In none of these cases were tubercle bacilli found in the sputum. All of them had a history of pneumonia or influenza. The X-Ray Plates in all showed free apices. The physical signs all pointed to basal or central lesions. It seemed easy to diagnose at least a condition of non-tuberculosis, but two cardinal points were forgotten (1) that copious purulent sputum showing no tubercle bacilli after repeated examinations usually negatives tuberculosis and (2) that tuberculosis in the adult practically never begins as a basal lesion.

Surgery is the only help for these cases. Early recognition, followed by quick operative procedure. I firmly believe that our first case would have lived had the diagnosis been made early enough and a radical lobectomy performed. The second case was diagnosed too late for the proper intervention. The third case we hope to report as cured.

A word about influenzal spots: A consolidated area may remain in a lung for months after the initial disease. The symptoms caused are low grade temperature of 99, or 100, some cough and

slight expectoration. There may or may not be loss of weight.

Careful physical examination, particularly of the inter-scapular spaces, will elicit a dull area with impaired breathing, and often fine inspiratory rales. An X-Ray picture such as is here shown will quickly make the diagnosis.

CONCLUSIONS.

1. We must recognize non-tuberculosis as a disease.
2. A large percentage, estimated at 10 to 16% of diagnosed pulmonary tuberculosis is not tuberculosis.
3. Too many of our returning soldiers are being classified as tuberculous when in reality they have perfectly normal lungs.
4. Errors in pulmonary diagnosis can be avoided by careful cultural examination of the sputum and the aid of the X-Ray.
5. The epidemics of 1917 and 1918 will produce a considerable number of lung abscesses whose diagnosis as pulmonary tuberculosis is inexcusable because fatal to the patient.
6. Early recognition and radical surgery are the means of combating acute and sub-acute purulent complications, such as lung abscess or localized gangrene of a lower lobe.
7. Primary tuberculosis in the adult seldom or never begins as a basal lesion.

CASE REPORTS.

Case 1. S. K., aged 19, married, had never been ill until April, 1918, when, following an ether anesthesia, contracted pneumonia. The anesthesia was given for a curettage.

Came under my observation July 28th, 1918, with a diagnosis of pulmonary tuberculosis. Her complaints consisted of pain over the right chest, constant cough, excessive purulent expectoration; vomited all her meals on account of cough.

Examination revealed dullness above left clavicle and over left apex posteriorly; also over right apex and at right base. Auscultation over right upper lobe and at right base showed roughened breathing, accompanied by coarse, dry rales.

A tentative diagnosis of pulmonary tuberculosis was made in this case. At no time, however, although weekly examinations were made, were tubercle bacilli found in the sputum. The left lung being in good condition, artificial pneumo-thorax was attempted on September 26, and 500 CC of nitrogen gas injected into the pleural cavity. October 3, 1918, patient stated that she felt improved and that her cough and expectoration had considerably diminished. On this date 1,000 CC of nitrogen gas were injected into the pleural cavity. October 17th all symptoms returned, patient again raising large quantities of muco-purulent sputum of very foul odor. On October 30th, a large needle was inserted at the right base. Upon withdrawing the barrel of the syringe, no fluid was obtained, but the needle contained a few drops of thick, yellowish-green pus.

The conclusion was arrived at that we were not dealing with a case of tuberculosis at all, but a lung abscess. Patient was advised to go to San Francisco for operation.

At Mt. Zion Hospital, in San Francisco, X-ray photograph showed a dense shadow occupying the entire right lower base.

First operation by Dr. Brunn, December 18th, 1918. Incision into lower lobe right lung; entire

lobe hard mass, but no pus discovered. Patient put to bed and drainage applied. After two months patient was still coughing thick, purulent sputum. No pus was drained from wound. General condition worse, with loss of fifteen pounds weight. Second operation was deemed advisable, and performed January 17th, 1919, consisting of lobectomy of lower lobe right lung. Patient died the same afternoon. At this operation abscess found in lower lobe; also abscessed mediastinal gland.

Conclusion from this case: The diagnosis here was unquestionably a lung gangrene, with lung abscess. Had this diagnosis been made early and a lobectomy performed, the life of this patient might have been saved.

Case 2. T. M., aged 35, male, was well until an attack of influenza in October, 1918. Pneumonia accompanied the attack and patient never regained his health and on account of constant cough, loss of weight and copious expectoration, was diagnosed as pulmonary tuberculosis. Came under my observation January 23d, 1919; the physical examination showed an emaciated man, with dullness over the entire right chest posteriorly from the middle of scapula to the base, with decreased vocal fremitus over area of dullness. Auscultation showed roughened breathing over left apex, diminished breath sounds over right base.

February 5th, exploratory thoracentesis was done at right base and 5 CC of bloody purulent matter was drawn.

February 6th, patient developed hiccoughs which could not be controlled by ordinary means; these hiccoughs lasting thirty-six hours, it was decided to send him to a general hospital for operative intervention.

February 8th, diagnosis of pulmonary abscess was made and patient recommended for operation. This patient's condition was so grave that the operation simply consisted of relieving adhesions of the lung to the diaphragm, which caused cessation of hiccoughs. Patient died one month after operation.

Case 3. R. R., child 10½ years of age. October, 1918, influenza and pneumonia. Ill thirty-three days. Period of apparent health until January 10, 1919, when she again took ill, with diagnosis of influenza relapse; twelve days in bed. Following this attack, continued to cough thick, purulent sputum. Afternoon temperature up to 100.5 degrees, with days of no fever. She came to me March 15th, 1919, with the statement of her father that two physicians had diagnosed her condition as pulmonary tuberculosis, although no tubercle bacilli had been found in the sputum and the loss of weight was insignificant.

The physical examination showed dullness of the entire left chest, anterior and posterior, with absent breath sounds under clavicle and distant bronchial breathing posteriorly. The vocal fremitus over area of dullness was materially increased.

Laboratory: Sputum negative to tubercle bacilli; some diplococci; no pneumococci. Streptococci present, numerous gram positive and negative bacilli. Culture shows diplo- and streptococci. The blood showed 17,000 leucocytes with 60 per cent. polymorph. The urine was negative.

The X-Ray: (See Plate) showed dense shadow of entire lower lobe.

Diagnosis: Pulmonary abscess left lung, upper part of lower lobe.

Operation by Dr. Harold Brunn, March 22d. Fourth rib resected in axillary line and lung incised in the densest area after aspiration had produced small amount of pus.

No free pus was obtained. Patient put to bed with drainage of wound. After one week practically no pus came from the wound, but patient was still coughing and expectorating large amounts of heavy, purulent sputum.

March 29: Returned to operating room; under anesthesia patient coughed, and considerable pus exuded into wound opening. The syringe was inserted and a large abscess found posterior to incision instead of anteriorly toward bifurcation, as was originally supposed. Drainage from wound after this was considerable and uninterrupted.

April 15: Patient is convalescing. Very little pus from wound; cough and other symptoms have almost ceased. Recovery should be complete in this case.

Criticism: In spite of most careful fluoroscopic examination and stereoscopic plates, we were deceived as to the exact location of this abscess.

Case 4. I. A., a child 5 years old, of healthy parents, susceptible to attacks of Acute Bronchitis. Developed influenza five weeks previous to having an X-ray taken. Ran a temperature 104-105, had definite localized lesion right base, still running a temperature at time X-ray was taken. Some cough, no expectoration.

Plate shows exudate or influenzal spot which will disappear under rest.

Case 5. J. F. Long-standing history of cough in coal miner.

X-ray shows marked pneumokoniosis.

Bibliography.

1. Cole, Dochez, Avery—Monograph 1917.
2. J. A. Luetscher—Archives Internal Medicine Oct. 1915.
3. Chandler Walker—American Journal of Medical Science, February and March, 1919.
Boston Med. & Surg. Journal, 1918 CLXXIX, 288.
Archives Internal Medicine, 1918 XXII, 466.
Ibid. 1919.
4. Stone & Swift—A. M. A. Journal, February 15, 1919.
5. Opie, E. L.—A. M. A. Journal, February 22, 1919.
6. Lieutenant Colonel J. H. Elliott—American Review of Tuberculosis, January, 1919.
7. A. Trasoff—New York Medical Journal, October 19, 1918.
8. Fishberg—Textbook Pulmonary Tuberculosis & Medical Record, January 22, 1916.
9. J. A. Miller—American Journal Medical Sciences, December, 1917.
10. Garvin, Yvall & Moritz—American Review of Tuberculosis, Vol. 1, No. 1.
11. Garvin, Lyall & Moritz—Medical Clinics of North America, July, 1918.
12. J. A. Miller—New York Medical Journal, April 28, 1917.

A REVIEW OF THE PNEUMONIA OF LAST YEAR.*

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An unprecedented prevalence of pneumonia has occurred during the last year associated with the massing together of men for war purposes and the recent epidemics of influenza, measles, and streptococcal infections. So many articles have been written within the last twelve months dealing with the symptoms and the changes in the routine treatment of these pneumonias and of empyema that it seems proper at this time to review the situation.

The pneumonias, broncho-pneumonias and their complications, which occurred before the great pandemic of influenza evidenced itself, presented some most unusual features and these will be considered in this paper. The influenzal pneumonias will not be discussed since this was thoroughly done in a recent article by Reed in this journal.

Pneumonia became the problem of the Army as soon as the camps were established. Several cantonments had epidemics of hemolytic streptococcal pneumonias of great severity, some of them being

associated with measles. Indeed, W. H. Welch stated that the enhanced virulence of the streptococcus was the most important problem of the war. Moreover pneumococci belonging to the formerly less harmful Groups II. and IV., began to show remarkable increase in producing disease. Lobar pneumonia, such as that of civil life, became unusually fatal because of secondary infections with streptococci. Indeed unless so complicated, many observers including Stone, Camac, and Opie feel that lobar pneumonia is relatively harmless. Staphylococcal pneumonia, as described by Chickering and Park, has been rather frequent and very fatal in certain camps.

The mortality in these pneumonias at times has been exceedingly high. Stone quotes the average mortality for lobar pneumonia as being 45 per cent. and for broncho-pneumonia complicating measles as 23 per cent. In some other camps the mortality for broncho-pneumonia has been nearer 50 per cent. A most striking fact has been the varying mortality from month to month, being highest during March and April and least in November. This has been due to the increased virulence of the pneumococci and the frequency of the hemolytic streptococcal infections.

Cummings comments on the marked fatality of hemolytic streptococcal septicaemias. Hirsch found the virulence of pneumococci belonging to Groups II. and IV. unusually severe in Camp Grant. The mortality, moreover, has been raised because of the frequency of empyemas which at first were exceedingly fatal.

The diagnosis of lobar pneumonia has been without difficulty, initiated as it usually is by a chill and high fever. Broncho-pneumonia, however, was often overlooked at first, thus leading to serious consequences because of the patient being up and around. It was to be suspected when the patient became restless and developed cyanosis and dyspnea as the fever persisted. Moist crackling rales developed in one or both lungs with no definite consolidation. The pulse became weak. Drenching sweats were apt to occur. The fever was irregular and finally fell by lysis.

The X-ray has been especially efficient in showing consolidation in the lungs before physical signs develop. These characteristics of the X-ray picture in lobar and broncho-pneumonia have been well described by Davis in a recent article. It would be fortunate if every suspicious pneumonia could be roentgenographed. However, the X-ray can only be made use of for this purpose in modern hospitals or clinics.

Blood counts show a leucocytosis in both broncho and lobar-pneumonias, being slightly higher in the former. Cole, and later Dunham, comment on the rather infrequent positive blood cultures. One of the best series of blood cultures was that of McClelland who obtained 19.3 per cent. positives. Of these 46 per cent. were due to Type I. pneumococcus, 25 per cent. Type II., 4 per cent. Type IV., and 35 per cent. streptococcus hemolyticus. As mentioned before, in other camps, Group II., and especially Group IV., pneumococci far outnumbered Group I. in frequency.

*Read before the Alameda County Medical Society.

The modern method of determining the types of pneumococci and streptococci in the sputum, developed through the work of the Rockefeller Institute under the leadership of Rufus Cole, Rose now of the Mayo Clinic, and others, has made possible the accurate determination of the organisms causing pneumonia. Of the four recognized types of pneumonia, infections due to the third have been absent in practically every camp. Types II. and IV. have been largely responsible though in some camps, pneumonia due to Type I. has been fairly common. In contrast to this prevalence, it is interesting to compare Cole's findings in 1917 which showed 65 per cent. of lobar pneumonias due to Groups I. and II. with 25 to 35 per cent. mortality, and 10 per cent. due to Group III., these being most severe. Group IV. consisting of the ordinary mouth pneumococci rarely caused pneumonias. It was found that organisms of Groups I. and II. could be carried for a few weeks in normal mouths, whereas Group III. organisms could be carried for years. The streptococcal pneumonias have been due most frequently to the hemolyticus, though the non-hemolytic streptococcus has been responsible at times.

The treatment of pneumonia has been somewhat revolutionized in the last few years, again largely through the work of Cole and his associates. Fresh air has been found most important because of the disturbed respiration. In a very convincing article, Stone shows the much lower mortality among cases which have been thoroughly digitalized. He followed the method of Eggleston in administering digitalis, giving about .15 c.c. of a standard tincture of digitalis for every pound of body weight in graduated doses during the first 48 hours of the treatment, following this by smaller tonic doses. For falling blood-pressure and intestinal atony pituitary extract has been used. Atropin has been useful in pulmonary edema and bronchorrhoea. Care must be taken, it has been found, with irritating enemas since thrombosis in the hemorrhoidal veins with resulting pulmonary embolism, may occur. Fluids must be forced if necessary by rectum and intravenously. Litchfield has had encouraging results in desperate pneumonias with 25 per cent. glucose intravenously, though others have been unable to see the same benefit.

The use of serum in pneumonia is of recent development. It is generally conceded in pneumonia due to Type I. that about 100 c.c. of Type I. serum should be given intravenously daily for three or four days. Redden recently recommends only eight-hour intervals between doses. That this treatment is beneficial is shown by the frequent abortions of those pneumonias and by demonstrations, such as that of McClelland, that positive blood cultures disappear after serum treatment. Spooner and Sellards point out the importance of the serum being of high titer. In their Type I. pneumonias where serum of low titer was used, the mortality was 53 per cent. as compared with 7 per cent. where serum of high titer was employed. Polyvalent serum is not recommended by all, though at Camp McArthur cases which re-

ceived such serum routinely in spite of the type of pneumococcus found, have run a milder course with a lower mortality than where such serum was not used. Camac also recommends such use of polyvalent serum. Reed recently calls attention to the use of blood transfusions from donors convalescent from the same type of pneumonias as that suffered by the patient.

In severe pneumonias due to the streptococcus, anti-streptococcic serum is probably indicated though it must be given in at least 50 c.c. doses. However, Stone states that the maximal good from streptococcic serum will not result until a polyvalent serum, potent for all known strains of pathogenic streptococci, is obtainable.

To prevent serum anaphylaxis all patients should be given 1 c.c. of serum subcutaneously followed in half an hour by 1 c.c. intramuscularly. If no local or general reaction results at the end of one hour the administration of the full dose can be started though the first 15 c.c.s should be given very slowly. If the patient is sensitive, very small doses of serum given over several hours in increasing amounts will desensitize him. If the patient shows signs of sensitiveness to serum after it has been given, he will within twenty minutes become uneasy, begin to scratch his skin, breathe rapidly and become apprehensive and moderately cyanotic. If one milligram of atropin and 1 c.c. of adrenalin are then given intramuscularly on the appearance of these symptoms, they will all disappear within fifteen minutes and serum treatment can be continued within 1 hour.

One of the most serious developments of the past year has been the prevalence of empyemas in pneumonias, particularly those due to the streptococcus. In the latter type, empyemia has come on exceedingly early and in some camps even 36 per cent. of streptococcal pneumonias have been thus complicated.

The diagnosis of these empyemas is most important. Clinically they may be recognized by increased respiratory and pulse rates, by increased cyanosis, and delayed resolution. The temperature may be slight or even absent. On examination of the chest, weak voice sounds, diminished tactile and vocal fremitus and whispered voice sounds, together with flatness are the most important signs in suggesting fluid. Sweating is usually very marked as emphasized by Brooks. A septic appearance is apt to develop.

The X-ray is especially serviceable in locating inter-lobar empyema and in showing fluid in the pleural cavities.

If empyema is suspected at any time, exploration with an aspirating needle about four centimeters long must be repeatedly done until the fluid is obtained. This last procedure is universally recognized as being the most important means in diagnosing empyemas.

In the varying camps the mortality due to empyema has varied. At Camp Meade for instance, empyemas due to pneumococcus showed 40 per cent. mortality, while those due to streptococcus showed 41 per cent. In another camp 23 per cent. of all pneumonias developed empyema, 54 per cent. of which died.

In the empyemas due to streptococcus which have often developed during the first few days of the pneumonia, it has been found that a thin exudate at first forms and that if an operation is done at this time the mortality is exceedingly high. Thus twenty-two of such cases commented on by Brooks due to the streptococcus and operated on early, nearly all died. It is now conceded that such empyemas must be merely aspirated every one to three days according to the embarrassment of respiration until the pus becomes thick and creamy. If necessary a little salt solution can be introduced to dilute the pus and enable it to be withdrawn. Then finally either surgical intervention can be resorted to if it is deemed best to do a costectomy or a thoractomy, or the empyema may be treated by one of the closed methods some of which are briefly mentioned below.

The empyema commission has suggested that a drainage opening from two to four inches in length be established so that a double-barreled drainage tube can be introduced through a rubber dam attached to the skin by adhesive. Suction is established on one tube and in this way the lung can be kept from collapsing. Dakin's solution can be instilled and drawn off from the cavity through the other, thus preventing the persistence of the streptococcal infection. Garbat points out that the empyema should not be considered cured until the cultures from the cavity itself are negative. By this treatment the mortality in empyemas has been reduced from between 30 and 85 per cent. to 4.3 per cent. in Camp Lee. Thoracotomy and this introduction of Carrel tubes is not to be recommended because of the necessity of an open thorax.

McKenna, and in a later article Mozingo, recommend another procedure for the closed drainage of empyemas irrespective of the character of the pus present. A trocar and cannula just large enough to thread a No. 14 French catheter into it, is introduced into the chest, at the most suitable point, as determined by the X-ray. After the catheter has been inserted the cannula is withdrawn. The pus from the cavity is then drained off. The catheter is left in place and there is left in the cavity an amount of Dakin's solution equal to one half the number of c.c.s of pus withdrawn. The drawing off and instillation of this Dakin's solution is repeated five times a day by either an experienced nurse or the surgeon. After seven days the pyogenic membrane is usually dissolved by Dakin's solution. Mozingo then recommends the use of formaldehyde instillation which was found to sterilize cavities which did not become sterile with Dakin's solution. In the presence of other pockets of pus similar to those along the sternal pleura, which have proved so fatal according to Stone, the above procedure is repeated. The advantage of the use of the catheter is that the lung is not damaged, open pneumothorax is not produced, and sinuses are not so apt to follow as when thoracotomy is done.

The use of a Brewer tube with a stiff rubber suction bulb attached has been recommended by

Blankenhorn as another closed method for the drainage of empyemas.

The danger of open pneumothorax is pointed out by Graham and Bell in an excellent article based on experimental work. They found a normal person can stand an opening two inches by 4 inches only a short time, since the change in pressure is transmitted through the mobile mediastinum to the opposite lung. Thus in pneumonia where the air passages are obstructed, the respiratory muscles are exhausted, and consolidation is present, the embarrassment of respiration is too great in open pneumothorax and asphyxiation gradually results. However after the acute empyema subsides, consolidation is gone, the respiratory muscles have recovered and the mediastinum is stiffened by adhesions this embarrassment does not result. They moreover point out that lung surgery is grave and chest openings must be closed immediately.

The X-ray has been used to show the extent of old draining empyemic cavities. Thorium nitrate and potassium iodide have been suggested for filling the cavity in order to get the picture, but the best mixture seems to be that of Stevens consisting of a sterile combination of cotton seed oil with 20 per cent. bismuth subnitrate and 3 per cent. powdered acacia.

Finally in the treatment of empyemas the patients must be exceedingly well fed so that the nitrogen waste which is quite excessive can be equalized. The prevention of cicatricial fixation of the lung after the empyema has healed should be prevented by blowing against resistance, by the use of negative pressure, and by physical exercise.

Other complications, such as pericarditis, otitis media, jaundice, mastoiditis, meningitis, interstitial emphysema and pneumothorax, peritonitis, and lung abscess are not especially common as shown by the post mortem examinations by McCallum and others. However, they should be kept in mind and watched for carefully.

Many prophylactic measures have been developed during the last year as a result of the prevalence of these pneumonias. In the Army camps resistance to infections has been definitely lowered by exposure to wet, by insufficient clothing and food, and by exhaustive work. Eradication of these conditions has been attempted. The use of masks by all who treat infectious diseases has become routine in the Army. It is quite evident however, as Macey emphasizes, that the danger of droplet infection through the eyes is quite as great as through the nose and mouth. Thus for adequate protection large glasses should be worn as well as masks. In the Army, patients have not been allowed to smoke, since germs can be carried in that way. Careful regulation of wash rooms has been insisted upon. The demonstration that healthful people can carry pneumonia producing germs had become definite. Cole has shown the frequency of pathogenic pneumococci in the throats of healthy persons who have been in contact with pneumonic patients, and Ingraham recently has pointed out again the similar finding of streptococci as a result of contact with patients infected with those or-

ganisms. Finally the demonstration of the success of quarantine of all patients until accurate diagnoses are made and the distribution of such patients in wards where like infections are only present has been shown to discourage the spread of such diseases.

As a preventive for pneumonia definite evidence, such as that of Fennel in an excellent recent article, begins to show the success of pneumococcic lipo vaccines in the prevention of pneumonia of all types included in the vaccine. Rosenow moreover is of the same opinion. Camac prophesies good prophylactic results in the use of carefully prepared polyvalent streptococcal vaccines. The failure of former attempts in prophylaxis has probably been due to the non-inclusion of the proper strains of pneumococci and streptococci in the vaccine which has been administered.

In conclusion I wish to lay emphasis on the following facts.

1. Pneumonia of unusual severity and varying mortality has been most prevalent during the last year, especially in the Army camps.

2. The diagnosis of these pneumonias, especially of the lobar type, has been greatly facilitated by the use of the X-Ray.

3. The treatment of these pneumonias with large doses of digitalis and in suitable cases with serum has undoubtedly reduced the mortality.

4. Empyemas developing early in pneumonias due to the streptococcus have been found especially fatal unless repeatedly aspirated until the pus became thick and creamy, when surgical intervention, preferably by a closed method, might be resorted to safely.

5. Many new ideas for successful prophylaxis have been worked out including the use of pneumococcic and possibly streptococcic vaccines.

Thomson Building.

(Note: This communication is a digest of some one hundred articles which have appeared in the medical literature of the past year. A few of the most important references are given.)

References.

1. Stone, Phillips. Biss. A Clinical Study of Pneumonia Based on Eight Hundred and Seventy-one Cases; Arch. Int. Med. 1918, Vol. XXII, p. 409.
2. E. K. Dunham, E. A. Graham. Cases of Empyema at Camp Lee; A. M. A. 1918, Vol. LXXI, pp. 366 and 443.
3. L. Litchfield. Glucose Intravenously as a Therapeutic Measure; A. M. A. 1918, Vol. 71, p. 504.
4. R. Cole. Prevention of Pneumonia; A. M. A. 1918, Vol. 71, p. 635.
5. H. Brooks and R. Cecil. A study of Eighty Cases of Empyema at Camp Upton; Arch. Int. Med. 1918; Vol. 22, p. 269.
6. L. Spooner, A. Sellands, J. Wyman; Serum Treatment of Type 1 Pneumonia; A. M. A., 1918, Vol. 71, 1310.
7. R. Cole. Suggestions Concerning the Prevention and Cure of Acute Lobar Pneumonia; Amer. Jour. of Pub. Health, 1917, Vol. VII, p. 6.
8. Graham and Bell. Open Pneumothorax; Its Relation to the Treatment of Empyema; A. J. Med. Sc. 1918, Vol. 156, p. 839.
9. E. L. Davis. A Roentgen Study of One Thousand Chests at Camp Devens; A. M. A., 1918, Vol. 70; p. 1525.
10. Maxcy. The Transmission of Infection Through the Eye; A. M. A. 1919; Vol. 72; p. 636.
11. Chickering, Park. Staphylococcus Aureus Pneumonia; A. M. A., 1919; Vol. 72; p. 617.
12. Opie. Pneumonia at Camp Funston; A. M. A., 1919, Vol. 72; p. 108.
13. Stone and Swift. Influenza and Influenzal Pneumonia at Fort Riley; A. M. A., 1919, Vol. 72; p. 487.
14. Fennel. Prophylactic Inoculation Against Pneumonia; A. M. A., 1918, Vol. 71; p. 2115.

15. Mozingo. The Surgical Treatment of Empyema by a Closed Method; A. M. A., 1919, Vol. 71; p. 2062.
16. Reed and Snare. Pathology and Treatment of Influenzal Pneumonia; Calif. State Jour. of Med., 1919, Vol. XVII, p. 43.
17. H. McKenna. Operation for Empyema; a Preliminary Report Covering an Observation on One Hundred and Fifty-five Cases; A. M. A., 1918, Vol. 71; p. 743.

CYSTITIS AS A DIAGNOSTIC FALLACY.*

By GEORGE G. REINLE, M. D., and E. SPENCE DE PUY, M. D., Oakland.

Nephritis, Cystitis. Of all the recognizable disease pictures of the urinary system these two as diagnoses rank highest in degree of popularity. So almost exclusively are these terms used that one might question whether other urological conditions are sufficiently well kept in mind, and whether in truth the terms cystitis and nephritis have a definite meaning in the minds of their users. More frequently than should be, are disturbances of the urinary system lacking in definite recognition. It is only within quite recent times, however, that urinary diseases have been studied in terms of living subject; heretofore they have been classified in accordance with the findings of the mortuary room, and effort made to fit the symptoms of the living to the findings of the dead.

Urine reports are closely scanned, but are all of the findings given due consideration? The diagnoses reached from the urinary reports are commonly far from ideal. As frequently interpreted, if there are casts, irrespective of reported white blood cells, the case automatically becomes one of nephritis, the type, depending upon the specific gravity and urine output or, if there is pus, and no casts, the case is not uncommonly concluded to be one of cystitis. In all probability neither of these diagnoses is correct, but in regard to the latter we wish particularly to call attention.

That the number of diagnoses of cystitis is too common and is not particularly creditable; a multitude of diagnostic sins hide behind it. Cystitis as a diagnosis is applied to pathological conditions ranging in location from the meatus urinarius to the cortex of the kidney. This is unfortunate when the grave consequences are considered, for while actually priceless time is being whiled away in the consumption of demulcents, the ingestion of urinary antiseptics, the injection of vaccines, and irrigations of the bladder, one and often both kidneys are frequently undergoing degeneration beyond repair.

Cystitis as a diagnosis will not do. We must realize that the term, as indicative of a disease, is of but limited significance. This is a conclusion fully concurred in by all urologists. A diagnosis of cystitis at the best can be but 4 per cent, which leaves small margin of comfort. Cystitis is no more a disease than is "dropsy" or "inflammation of the bowels."

Calk has this to say: "Cystitis as a disease is extremely rare, it is usually representative of some co-existing infection either in the upper urinary

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tract or in the genitals. This diagnosis, frequently based upon the symptoms: frequency, pain and pus in the urine, is entirely insufficient, and this superficial diagnoses is responsible for many of the destructive kidney lesions." And, he adds: "The profession must realize that if such symptoms do not promptly abate under the standard treatment for cystitis within a week or ten days, the cystitis is complicated by some other disease particularly infections of the kidney."

Another authority asserts: "It is important not to be deluded into being satisfied with dismissing a patient with the diagnosis of cystitis. The symptoms call for a complete investigation of the kidneys, prostate, seminal vesicles and urethra, as well as the bladder itself." Keys says: "The diagnosis of cystitis means nothing. Inflammation of the bladder is ALWAYS caused by something else. That 'something else' is usually infection of the kidney."

Undoubtedly there may be a cystitis in a cystocele, for example, for here we have the ideal conditions of stale urine, decomposition, and irritation of the mucosa by an alkaline urine, and the close proximity of this culture medium to a source of infection the genitals and the lower bowel. But even here the diagnosis can not properly be a cystitis, for we have back of it a bladder defect.

We have cystitis following other causes of urinary retention of course, but as they are classifiable as urinary diseases our cystitis again becomes merely a symptom, not a disease. Nor is it of any particular moment what the infecting organism may be, whether it be colon bacillus, staphylococcus or an organism causing incrustation.

The two great factors in cystitis are retained urine, plus invading organisms. The organism may make its way from the urethra, it may descend with the urine from the kidneys, it may pass from the blood stream direct to the bladder, or it may pass through the lymphatics from adjacent organs.

Retained urine, incomplete emptying, result from obstructions of the urethra, which may be occasioned by phimosis, small meatus, stricture, calculus of the urethra, and new growths in urethra.

At first thought this might seem merely a technical enumeration of causes that would not be overlooked in cystitis. But, considering them in their order, we recall a case of phimosis complaining of frequent and painful urination. The patient was an adult of 37. There was a history of "bladder trouble" from as far back as could be recalled. Physicians had been consulted at various times, and the urine had been examined, but the genitals had apparently never been subjected to inspection. There was a long prepuce, almost fibrous in consistence, which was traversed by a narrow channel, through which it required an expulsive effort to force the urine. A circumcision was done and with a few instillations into the bladder the long standing symptoms disappeared. A complete urological examination revealed no other pathology. The case is simple, the point is obvious, but the patient in the meantime suffered for years.

A pin-hole meatus would cause the same result, but would not, of course, be discovered unless the prepuce were retracted and the meatus inspected.

The following case of calculus of the urethra indicates again the necessity for care in little things. A woman was seen suffering acute distress through inability to void her urine. The bladder was immensely distended, the urethra was intensely hyperemic and patulous. Palpation through the vagina revealed a hard foreign body in the urethra, and an attempt to pass a metal catheter established the diagnosis of calculus of the urethra. So large was the stone it formed almost a complete urethral cast. Upon removal of the obstruction and cystoscopy, the bladder was found to harbor no other calculi. The particularly interesting part of this case is the history. The patient had had "bladder trouble" for eleven years. During that time she had suffered continuously from diurnal frequency, though she had only slight night disturbances, rising usually only twice during the night. The patient "worked out" by the day, and her circumstances were not good, but for all of that she had consulted five different physicians. A sample of urine was requested by each, two of them actually sent the urine to a laboratory, and reported that there was considerable pus. The patient was informed that she had "inflammation of the bladder," though one attendant thought there might be some trouble with the kidneys. Eleven years, five physicians, certainly two examinations of the urine, but not one examination of the patient, and a mere attempt to pass a catheter would have cleared up the diagnosis.

New Growths of the Urethra. Papillomata do occur in the male urethra, and with greater frequency than might be supposed, particularly at the margin of the sphincter, but they are less common than caruncle of the female urethra. An interesting case in point was recently seen through the courtesy of Dr. Jo Hamilton. A woman 67 years of age, upon whom he had operated for caruncle, was suffering from an intense purulent cystitis. As in many such cases the history taught a great deal. She had suffered well-nigh unbearable distress for nearly twenty-five years. For several years past she had intermittently practised self-catheterization which, difficult enough for the male to perform aseptically, is out of the question for the female. There followed a staphylococcal infection. Upon examination the catheter brought away at first almost pure pus, and the bladder was only cleansed after repeated washings, and would not hold enough for cystoscopic examination unless under an anesthetic, nor would the patient tolerate the manipulation of a close-vision instrument, requiring less than one ounce of water. Although this patient had suffered all these years, her caruncle was only recently discovered and removed, and her self-inflicted catheter infection has resulted in a very pitiable condition.

cystitis but of kidney infections as well. Urethral stricture, because of its principal symptom, when occurring in the male, is not commonly

overlooked. In the female, however, urethral obstruction is not so commonly suspected. In this connection Osgood has this to say:

In the female the urethra is often disregarded. Every complaint of painful urination should focus the attention of the investigator upon the urethra as the seat of the origin of this symptom. Abnormally frequent urination points to a disturbance of the sensory nerves in the grasp of the internal sphincter. Among the important causes of stricture of the female urethra he considers the trauma due to parturition to be one well kept in mind. Luys as well as Osgood considers that the female urethra should be much more frequently investigated through the urethroscope, and in this connection there is no question but what with the newer, water-dilating urethral instruments much better and more enlightening pictures are to be observed.

According to the same observer, the subjective symptoms of stricture of the female urethra may not make themselves manifest for a long period; they may develop gradually, and it may be months or years before the patient calls attention to her condition. Bladder infection is an inevitable late result, this frequently complicated by hypertrophy of the detruser and trabeculation.

Inflammation as well as stricture are a not uncommon condition in the female, and frequently are diagnosed as cystitis. Only an instrumental examination will establish the differential diagnosis. It may be observed in passing that urethroscopy is a more difficult procedure than cystoscopy, and that it demands patience, skill and experience.

Next in order of incomplete bladder emptying as the result of obstructions, we have: displacements, prolapse and cystocele, which we must satisfy ourselves with merely mentioning. Also to be borne in mind are extravescical tumors, adhesions, and obstructions of the bladder neck. The latter is of the utmost importance, for the dual reason that it is so common, and so frequently overlooked. Under this class of obstructions come prostatic hypertrophy, prostatic carcinoma, prostatic atrophy. The cystitis due to these causes is not in the main acute, and may be accompanied by retention varying in quantity from a few to several hundred cc.

Prostatic hypertrophy, even when the gland is of enormous size, is commonly undetected, for the reason that it does not come under touch of some inquisitive finger. Nor is digital examination alone always sufficient, even when the gland is large, for it may be that the main portion of the growth is intravesical. On the whole, however, among men who really examine their patients the very large prostate is generally discovered. It is the only moderately large prostate that one has to keep continuously in mind. An individual with such an obstruction and a residual urine of 20 cc., may suddenly develop an exceedingly stubborn cystitis. The prostate may not be very large, and yet may obstruct the urinary flow. Only an instrumental examination will reveal the true condition. It is upon this type of prostate the surgeon hesitates about performing a radical operation; something

however must be done, and it is here endoscopic methods of attack are to be preferred.

Prostatic carcinoma, in considering cystitis, may be dismissed with consideration of prostatic hypertrophy, from which it will not be differentiated except by the exercise of special skill.

In addition to the obstructive causes of incomplete emptying there are the spinal lesions. Not uncommonly it is the urologist who discovers the first evidences of tabes. Just as truly as the eyeground mirrors a nephritis, so the trabeculated bladder may reflect the spinal lesion. Were routine cystoscopies done in all cases of cystitis, the tabes cases thus early detected would at least have a better chance of recovery through intensive spinal therapy administered at a time when the prospects of cure are better than when the symptoms have become more obvious.

As a quite different cause of incomplete emptying, diverticulum of the bladder is to be thought of. It is not a rare condition. The symptoms are frequent urination, pain, pus in the urine,—cystitis. Only the cystoscope will reveal the condition.

These, then, the various causes of incomplete bladder emptying and comprising a considerable number of well-defined conditions, are among the few that are daily treated for cystitis. But this is only one group. Another important group are the chronic irritants.

Foreign bodies.

Calculus.

Neoplasms.

Foreign bodies in the bladder generally bring with them their history of how the "accident" occurred, and consequently furnish their own diagnosis.

Calculi are not always diagnosed. One case is recalled that was treated several months by bladder irrigations. This patient was later operated upon by another attendant with the natural result of relief and cure.

Neoplasms of the bladder, when of long standing, give rise to a particularly intolerable cystitis, once they become infected. The diagnosis of vesical tumor is to be made either through cystoscopic examination, or, if of sufficient size, may be demonstrated by a cystogram, taken with a shadow-casting fluid in the bladder. A case of multiple papilloma came under observation a year and a half ago. This patient was suffering from frequency and pain of so severe a character that she was confined to the house entirely. The growth so completely filled a contracted bladder that cystoscopy with a water medium was out of the question, as not more than 30 cc. of fluid could be introduced. The ordinary observation cystoscope plunged immediately into a mass that darkened the instrument so that observation was impossible. Had a close-vision cystoscope with a continuous flow of water been available a view could of course been had. The mass was palpable through the vagina however and a diagnosis arrived at. The patient was operated by a supra-pubic cystomy, two sessile and one pediculated growth were removed. The history of this case shows that for a number of years this

patient had suffered and been treated by a number of physicians for cystitis. Up to the time this patient was first seen and for a number of weeks previously, the patient had been receiving semi-weekly bladder irrigations, and this in the face of the fact that less than 50 cc. fluid could be introduced. To complete the history, about three months following operation the patient returned with a recurrence of the frequency. The bladder at this time held a 150 cc. of fluid. Cystoscopy disclosed the scars of operation and as well a dozen or more new growths, all of small size, these probably the result of implantation at the time of operation. These growths were fulgurated at intervals of a week. After ten treatments the mucous membrane appeared free of growth in all but one place which had an appearance of malignancy. The patient was quite comfortable however and, although advised to return at intervals for observation, has not been seen for eight months. This is the most interesting case of "cystitis" we have encountered.

Another case of papilloma had three well-defined growths, with frequent urination and tenesmus. Fulguration was followed by relief upon first treatment and complete disappearance after five treatments. The bladder was normal when examined three months later.

So far as life itself is concerned we have thus far not considered the more important causes of cystitis, we now come to the vital factor. If there is pus in the urine it is important to know where it comes from and how dangerous it is.

The sources of pus are:

Fistulae.

Pelvic abscess.

Infections from the lower genito-urinary tract.

Infections of the kidney.

Posterior urethritis, during its onset, almost invariably has as its beginning frequency of urination accompanied invariably by pain. As in all acute cases urethral discharge has so recently advertised the source of the infection, there is small danger of the real condition being mistaken. In chronic posterior urethritis accompanied by vesical symptoms it is a different story. The diagnosis of the precise pathology of the posterior urethra requires special skill, but in order to effect a cure or even relief it is essential that the seat of the trouble and its character should be ascertained. Some of these patients, irrigated for a long time, become utterly discouraged. Although not a menace to life, posterior urethritis is frequently a serious burden to the patient's comfort, and almost invariably a violent disturber of his mental and nervous system. Posterior urethritis is not ordinarily to be cured by the mere passing of a sound, either once or many times, and it should serve better to place general respect for medicine upon a higher plane if this condition were not so frequently treated with little or no regard for refined diagnosis, upon which alone a rational therapy can be based.

Above and beyond all others the most important cause of cystitis is infection of the kidney. It can not be too frequently nor too forcibly repeated that every case of cystitis must at least be suspected of

having as its underlying cause an infected kidney, and this suspicion must not be abated until the contrary is proven. If it could be accepted that every case of cystitis must be proved NOT to be of renal origin, if every man could have it brought home to him that he has done but an exceedingly small part of his duty until he has EXCLUDED the kidneys beyond all doubt in every case of cystitis, humanity would be the gainer, and scientific medicine would be advanced.

There is no question but that the seriousness of kidney infections is not sufficiently well understood by the profession at large, and by this it is not meant by men of mediocre attainments only, but men really good in all other branches of medicine, —both surgeons and physicians.

The classifiable conditions about which there is no question, are:

Tuberculous kidney.

Pyelitis.

Pyonephritis.

Pyonephrosis.

Renal calculus with infection.

So important are these subjects that it can not be amiss to state again the well-accepted facts.

Tuberculous kidney, of which it is important to make a diagnosis at the earliest possible time, while surgical means may yet avail, is in a large proportion of cases proclaimed by violent bladder symptoms. These bladder symptoms are, in fact, often the only indications of the disease. "It may be laid down as a safe rule," says Morton, "to suspect tuberculous kidney in *every case* of cystitis in young persons which is not due to stone or stricture and does not get well under bladder washings with solutions of nitrate of silver." To this it might be added that if nitrate of silver solutions aggravate the condition the diagnosis is half made.

Not to enter into the diagnosis, each frequently being the logical successor of the other, is it possible for us to bring home to ourselves too strongly that every kidney disease is not Bright's disease; is it possible for us too strongly to emphasize the fact that pus in the urine probably comes not from the bladder only but very likely has its source in the kidneys; is it possible at all to too strongly urge the fact that the infected kidney goes on from bad to worse!

It might seem that we dwell too long upon the obvious, that these elementary urological truths need no emphasis, but that they do need emphasis we know from daily experience, and we can not too strongly proclaim, even at the risk of censure for our insistence, that there must be a continual, an unceasing watchfulness for kidney infections. If one is not alert a pyelitis will almost while you watch it become worse, and this again turn into something hopeless. There is so little in the way of therapy that can be done for the diseased kidney that it is of first importance that this little be done at the right time.

In a recent report Harry Culver instances 90 cases with proved pyonephritis entering Cook County Hospital in 1917 with not a single diagnosis of the condition, though ten were sufficiently

near to be serviceable to the patient,—that is, pyelitis. Cystitis was the admitting diagnosis range over 19 other diseases, such as appendicitis, cholelithiasis and so forth. This series of cases is reported from a city where the average of ability runs as high as it does anywhere in the country, yet one-ninth of the diagnoses were even approximately correct. The result is not so much one criticism, as for realization that in various affairs we must be dependent upon each other for extra special knowledge, and highly technical skill, if we are to achieve the kind of results properly to be expected of us.

In conclusion we desire to instance a case of renal calculus recently reported in the *Journal of the A. M. A.* The patient, with pus and blood in the urine, was treated for cystitis and her attendant referred her to a colleague who reports the case. "She was referred to me for diagnosis," says the latter. But instead of having the bladder looked into, or the ureters investigated, to find where the pus and blood came from, or even having a *Röntgen* taken, the consultant apparently made no more intelligent an effort than his predecessors, for he reports trying Argryol and permanganate irrigations for a considerable time. And then, quite by accident, as it were, "to locate the source of the infection," a *radiogram* was taken and an "enormous calculus discovered and the diagnosis thereby established." But even the diagnosis, with clear indications for surgery did the patient little good, for vaccines were futile because of an incidental purpura hemorrhagica that had developed while the patient was under observation. Only eventually was operation resorted to, with a relief of the intercurrent symptoms, as well as the troublesome bladder for which the patient had sought relief.

Cystitis! Yes, there is such a thing, but it is a diagnostic fallacy, the refuge either of the man who is careless or indifferent.

COMPLETE INVERSION OF THE UTERUS.

By WILLIAM MONROE LEWIS, M. D., Los Angeles.

Mrs. O. A. T., Wt. 130, Age 26, personal history negative, second labor; pregnancy normal in every respect; labor normal and rapid.

While the first labor two years before had been difficult, requiring forceps to complete the delivery, this child was born without any difficulty, the umbilical cord of normal length. The patient was in the dorsal position when the child was born.

The third stage was slow, but not attended by hemorrhage. As the uterus was gathered up in the left hand it was felt to give way and leave the hand. At the same time the placenta protruded from the vagina followed by a large red smooth shining body (the inverted uterus).

There was no hemorrhage. The patient had been given chloroform as labor progressed to ease the pains and when the child was delivered she was completely under its influence. Muscular relaxation seemed complete. Not an instant was lost before efforts were made to restore the organ to its place. In grasping the uterus, which was completely in the world in full view, it felt firmly embedded and as I moved it from side to side there was no give on either side.

I made a cone of my fingers and pressed over the inverted fundus for a point that would give and much to my satisfaction this spot was found before many seconds and the organ returned to

its place enveloping my hand. Crede massage promptly restored a firm uterus and the hand was withdrawn with not enough blood to call a hemorrhage. Robust health but no future pregnancies.

The second case occurred in the practice of Dr. J. A. LeDoux, in 1916. It had been a slow tedious labor in a young woman 22 years old, weighing about 120 pounds. This was her first pregnancy and the months of gestation had passed without incident. When dilation was complete forceps were applied and a living child delivered without difficulty, the placenta following promptly without hemorrhage. In a very few minutes the patient recovered consciousness from the ether and at once complained of pain in uterus. Inspection revealed no hemorrhage and nothing protruding. At this moment I was called in consultation. On examination per vagina the vaginal space was occupied by a large smooth shining body very firm, which could be seen on separating the labii; and the hand placed over the pubic brim of the pelvis felt nothing like a uterus. An anesthetic was administered and the uterus restored as in the first case by making a cone of the fingers and feeling about till a soft spot was found, then the uterus was quickly reduced. When the hand was withdrawn from the uterus contraction was prompt without hemorrhage. The patient rapidly recovered from the shock.

The woman has borne one child since without any difficulty.

Both of these cases were spontaneous complete inversions of the uterus as no effort was made to expel placenta or sit up in bed, both being under the influence of an anesthetic. Both cords were of normal length and traction was not made on cord. The second case suffered from profound shock; her condition could not be recognized promptly, as was the first.

Book Reviews

General Medicine. Vol. 1 of the Practical Medicine Series 1919, edited by Frank Billings. 622 pages. Chicago: Year Book Publishers. 1919. Price \$2.50.

Contents: Infectious Diseases. Diseases of the chest: bronchi, lungs and pleura, heart and blood vessels. Diseases of the blood and blood-making organs. Diseases of the ductless glands. Disorders of development. Diseases of metabolism. Miscellaneous diseases. Diseases of the kidneys; gastro-intestinal tract. Diseases of the liver and gall-bladder.

Laboratory Methods of the United States Army. Medical War Manual No. 6. Compiled by the Division of Infectious Diseases and Laboratories. Office of the Surgeon General, War Department, Washington, D. C. 256 pages. Philadelphia and New York: Lea & Febiger. 1918. Price \$1.50.

This book, although prepared for Army laboratories, should find a wide distribution among medical men engaged in civil practice. The contents deal with: collection and shipment of specimens and materials, solutions and stains, clinical pathological work, quantitative analytical methods, general bacteriological methods, special bacteriological methods, sanitary examination of milk, sanitary examination of water and sewage and detection of mercury in excretions.

The establishment of standard methods among civil hospitals throughout the country would no doubt be of as great advantage as it is in army work. In this small manual, standard laboratory technique only has been considered. E. V. K.

Ultra Violet Rays in Modern Dermatology. By Ralph Bernstein, M. D. 162 pages. Published by Achey & Goerecht, Lancaster, Penn.

This little book is devoted to the effect of light on skin diseases. It is well written, especially clear in technicalities, and for help to one who is using the ultra violet light, it is highly recommended. One always has to read a treatise of this sort with a certain amount of reservation for the author's enthusiasm, otherwise he might reach a conclusion that with the Kromayer lamp and the Alpine sun lamp, his equipment for the treatment of skin diseases is complete, whereas he may find by experience that the use of these instruments is extremely limited, though in their limitation they are most excellent. Therefore, by reading such a treatise and reserving the right to judge, a lot of benefit can be gained.

G. D. C.

The Ungearred Mind. By R. H. Chase. 351 pp. Illustrated. Philadelphia: F. A. Davis Company. 1918. Price \$2.75.

This book, as its name must indicate, is not of a strictly scientific character. It represents, perhaps, the leisurely ruminations of a man who has studied his classics and at the same time has found much food for reflection in his every-day work. There is nothing in it to make one consider that it has been compiled for popular consumption, since it is not of the kind that will appeal to the herd. One can easily picture in his mind's eye, a cultured physician of rather broad vision who has felt it incumbent upon himself to write, without any clear direct purpose before him. He has found more pleasure in the production of his pet volume than most of us will derive from reading it. It is a rare man, indeed, who has not felt, at some time in his life, that it would be interesting to let his pen wander over page after page and inscribe the thoughts that play before his mind. How pleasant it is to coin an apt phrase and round out a paragraph with a pertinent quotation. The Ungearred Mind deals chiefly with psychiatry, a subject in which Dr. Chase is well versed. It is written in a pleasant style and gives one the feeling that it has been written by a well-read and interesting man.

M. B. L.

Infection and Resistance. By Hans Zinsser. 585 pp. 2nd ed.; revised. New York: Macmillan. 1918. Price \$4.25.

The second edition of Zinsser's well known work appears with omissions and additions in keeping with the most modern conceptions of the subject in hand.

This is true especially of the subject of anaphylaxis—a voluminous literature has been reviewed and the concurrent and conflicting views, based upon his own and contemporary studies, are concisely correlated. The reactions due to non-specific proteins are given the attention they deserve. A section on immunity in syphilis is a new addition.

Zinsser's work is that of a student and is written for students in immunology. It embraces the principles of infection and immunity without discussing the technical phases of experimental procedure. Its subject matter is probably the most absorbing in all medicine, lucidly and interestingly presented.

E. A. V.

The Disabled Soldier. By Douglas C. McMurtrie. 232 pp. New York: Macmillan 1919. Price \$2.

In this time of rehabilitation of every phase of human life, nothing seems so paramount as the rehabilitation of the human being who has become disabled on the battlefield of war, industry, or life in general. Written by an enthusiast, Douglas

McMurtrie, who has for the past nine years devoted his time, experience and good will to the cripple, this book is a valuable contribution to American literature. Not only the medical practitioner and the social worker, but every individual interested in the welfare of the disabled, can gather a world of information from this volume. Beginning with a historic review about the "cast-away" of society, the author covers all phases of reconstruction of the human wreck in the various countries that have participated in the last war. The question of vocational reeducation and guidance is fully dealt with in reference to men who are handicapped, not only through the loss or deformity of one or more extremity, but who have lost sight or hearing as well.

A. G.

Pathological Technique. A practical Manual for workers in Pathologic Histology and Bacteriology, including directions for the performance of Autopsies and for Clinical Diagnosis by Laboratory Methods. By F. B. Mallory, M. D., Associate Professor of Pathology, Harvard Medical School; and J. B. Wright, M. D., Pathologist to the Massachusetts General Hospital. Seventh edition, revised and enlarged. Octavo of 555 pages, with 181 illustrations. Philadelphia and London: W. B. Saunders Company, 1918. Cloth, \$3.75.

The seventh edition of a standard work attests to the good reception accorded its predecessors. Of interest to the histo-pathologist and general laboratory worker are a few additions to the original text. Goodpasture's acid polychrome methylene blue stain for frozen sections and for demonstrating granules in pancreatic cells; Graham's ovidase stain for Leukocytic granules; Bemian's Congo red stain for spirochetes and Claudius' stain for flagella are among the most recently elaborated techniques. The method of differentiating the types of pneumococci as carried out at the Rockefeller Institute is given in detail, but no reference is made to work of other investigators. Among the newer suggestions are the use of the safety-razor blade in section cutting, benzene in paraffin embedding and Rubaschkin's method of fixing celloidin and frozen sections to the slide for staining. The section dealing with the performance of autopsies completes an excellent work.

W. T. C.

The Medical Clinics of North America. Volume II., Number III. (The Philadelphia Number, November, 1918). Octavo of 275 pages with 46 illustrations. Philadelphia and London: W. B. Saunders Company. 1919. Published Bimonthly. Price per year: Paper, \$10.00; Cloth, \$14.00.

Alfred Stengel: Influenza Epidemics of 1889 and 1918. H. R. M. Landis: Influenza and Some of Its Complications. J. B. Deaver: Surgical Complications and Sequelae of Influenza. R. C. Rosenberger: Bacteriologic Study of Sputum in the Recent Epidemic. C. W. Burr: Mental Complications and Sequelae of Influenza. E. A. Case: Bacteriology of Influenza. J. L. Davis: Nose, Throat and Ear Affections Complicating or Following Influenza. Maurice Osteimer: Influenza in Children. Thos McCrae: Sciatica. J. F. Schamberg and Albert Strickler: Intraspinal therapy in Syphilis. E. H. Funk: Chylithorax; Aortic Aneurysm with Esophageal Rupture; Tuberculosis and Pregnancy. M. E. Relfuss: Medical Treatment of Biliary Affections. J. P. Crozer Griffith: Dilatation of Colon in Children, with Especial Reference to Idiopathic Form. Maurice Osteimer: Feeding Babies During Their Second Year. C. S. Potts: Cerebral Palsies of Children. Leon Jonas: Diabetes. D. R. Bowen: X-Ray Diagnosis of Lung Diseases. S. D. W. Lundlum: Physiologic Psychiatry. David Riesman: Influenza, Remarks Upon Symptoms, Prevention, and Treatment.

A Manual of Diseases of the Nose, Throat and Ear. By E. B. Gleason, M. D., Professor of Otology in the Medico-Chirurgical College Graduate School, University of Pennsylvania. Fourth Edition, thoroughly revised. 12mo of 616 pages, 212 illustrations. Philadelphia and London: W. B. Saunders Company, 1918. Cloth, \$3.00 net.

No book in the English language fills the place of this excellent guide both for the general practitioner and the specialist. Only a man who is thoroughly familiar with the fundamental principles of the theory and practice of the specialty could gather together in such a short space the essential and leave out the non-essentials as skillfully as has this author. It is a rare pleasure to find in the medical literature the happy combination of authority and literary style which is here exhibited and one is repeatedly startled and pleased with the ease with which the author casts into oblivion the tediously described though non-essential hobbies and half-baked experiments of the glory seeker. Sanity and caution with advanced principles are the key-note of the work, and if every general practitioner would have the book at hand and use it the patient would have far less cause for complaint than he has at present, and the specialist would see fewer phantoms and more realities.

H. B. G.

Orthopaedic Surgery. By Royal Whitman. 914 pages; illustrated; 6th ed. rev. Philadelphia and New York: Lea & Febiger. 1919. Price \$7.00.

In this new edition, Whitman presents us with an uncommonly well worked out text-book of orthopedics. The classical orthopedic ailments, tubercular diseases of the joints, scoliosis, deformities of the foot, etc., are treated in detail. Those which orthopedics has more recently claimed as its own, various arthritides and traumatic affections, and the rarer disorders are handled more briefly. Whitman's own methods of treatment,—his foot braces, astraglectomy etc., are discussed minutely, but not to the exclusion of others. His judgment and criticism of certain extravagant methods—Abbott's work on scoliosis and Calot's statements, for example, are sane and sound. The book contains good statistical tables and references so well chosen that even the briefer chapters are easy guides to further study. It bears the same relation to orthopedics that Stimson does to fractures—its steadiness and reliability will make it a well-thumbed manual.

On Whitman has fallen the mantle of the old New York Guard of orthopedists—the lineage of Sayre, Taylor and Gibney. He, less than the rest of his American colleagues, has been caught by the widening flood of innovation arising from the war and oversweeping orthopedics. And accordingly the one lack in the book is the small stress laid on traumatic affections. One feels that Whitman has not been in and of this recent work—the work that has made of orthopedics the dominant specialty in industrial traumatic surgery. One feels that what he writes has not been gathered first hand; the chapters on traumatic disorders lack the sureness and independence of the older parts of the book. Information on those things must be sought elsewhere—from the references given in the foot-notes. With this exception, the book is thoroughly good; certainly, as it stands it may be recommended as the standard American text.

L. E.

Surgical Treatment. A Practical Treatise on the Therapy of Surgical Diseases for the use of Practitioners and Students of Surgery. By James Peter Warbasse, M. D., formerly Attending Surgeon to the Methodist Episcopal Hospital, Brooklyn, New York. In three large

octavo volumes, and separate Desk Index Volume. Philadelphia and London: W. B. Saunders Company. -1918-19. Per set (Three Volumes and the Index Volume): Cloth \$30.00 per set.

The reviewer predicts that this work will become immensely popular with both surgeons and students of surgery. The scope of the first volume covers the general principles of surgery, surgical technic, the surgical affections, the surgical diseases of blood vessels, lymphatics, bones, muscles, fasciae, tendons, bursae, the skin and its appendages and nerves. The second volume takes up the special surgical treatment of the head, spine, neck, thorax, breast and abdomen. Volume three covers abdominal surgery, genito-urinary surgery, surgery of the extremities, plastic and cosmetic surgery, electricity in surgery, first aid and bandaging.

Adequately to tell in detail of the subject matter of these three volumes would require an abstract of the books. Suffice it to say, that in them one finds and recognizes almost every point of interest that has appeared in the surgical literature for years past. This refers especially to the journals. A generous number of excellent illustrations constitutes one of the very valuable features of the work. One finds here a beautiful exposition of the application of surgical judgment. The work is not a catalogue of operations nor a manual of operative surgery; it is more a guide in the selection and application of the proper surgical measures to meet the needs of the cases. It will be found a most helpful and oft used addition to the surgeon's working library.

G. H. T.

The Surgical Clinics of Chicago. Volume 3, Number 2 (April 1919). Octavo of 242 pages, 62 illustrations. Philadelphia and London: W. B. Saunders Company. 1919. Published bi-monthly. Price per year, paper, \$10.00; cloth, \$14.00.

Quarterly Medical Clinics. A series of consecutive clinical demonstrations and lectures. By Frank Smithies, Augustana Hospital, Chicago. 188 pages. Published by Medicine and Surgery Publishing Co., St. Louis. Annual subscription: \$5 in paper; \$8 in cloth.

Contents: Rectal and sigmoid diverticula. Diffuse acute cerebro-spinal meningitis. Enlarged thymus in rachitic infant. Chronic anemia. Chronic intermittent anemia. Intestinal tuberculosis. Complete esophageal obstruction at cardia. Chronic constipation. Gastric cancer. Chronic alcoholism, lues and cardiorenal embarrassment. Cardiospasm and extensive dilatation of esophagus, dysphagia. Tuberculous ulcers of tongue and anus. Fatal case of influenza. Influenza with heart leakage. Chronic gastric ulcer.

We have given the table of contents of this journal according to the diagnosis of cases presented, rather than listing them according to table of contents as given in the journal itself. The cases are well presented and each case is followed by a commentary on various laboratory and diagnosis methods which make it of particular value to small hospital groups and medical societies. The classification of cases by diagnosis, either in a table of contents or in an index would enhance the value of the journal for purposes of reference.

Surgery of Oral Diseases and Malformations. Their Diagnosis and Treatment. By George Van Ingen Brown. 3d Edition. Illustrated. pp. 734. Phila. & N. Y.: Lea & Febiger. 1918. Price \$7.00.

This book marks the recent evolution of dentistry from a highly skilled handicraft to an established special branch of medicine. It treats with unusual completeness the bearing of the most

varied disorders—infectious diseases, diseases of nutrition and metabolism and nervous diseases, on dentistry. Objection might be made from the viewpoint of a medical man that comparatively little space is given to purely dental topics, and too much to subjects whose bearing on dentistry is scarcely apparent. We should wish especially for a fuller discussion of focal infections of oral origin which are disposed of in a scanty eight pages. From the standpoint of the dentist and the dental student, however, for whom the book is primarily intended, these objections will not hold. The dental specialist can get his detail from other sources, and it is a pleasure to see so well-grounded and broadly planned a work issue from the ranks of the dental profession. The book contains good descriptions of dental pathology, many of which will be of interest to the internist and general surgeon, e. g. the descriptions of changes in the tooth-pulp in trigeminal neuralgia, alveolar abscess, etc. It is excellently illustrated with photographs, drawings and colored plates. A chapter on dental war surgery with numerous illustrations of plastic facial reconstruction has been added to this edition. The work may be recommended to dentists and dental students; it also contains considerable of interest to the medical man.

L. E.

Fractures. By Joseph A. Blake. 150 pp. Illustrated. New York: Appleton. 1919.

In this monograph on gunshot fractures of the extremities, Blake has formulated the results of an experience and observation extending over a period of the war in hospitals largely devoted to fractures. It gives in explicit detail and masterly concision theory and practice of the physiological traction methods of fracture treatment. Those who have followed the development of fracture surgery during these last five years will appreciate the work and study of which Blake's book is the outcome. It will stand as a beautiful monument to five of the best years of the life of one of our chief American surgeons.

L. E.

Essentials of Surgery. By A. L. McDonald. 264 pp. Illustrated. Philadelphia: Lippincott. 1919.

This book would have been better written by a nurse than by a doctor. It tries to give in a compass of 220 pages an oversight over the principal surgical diseases. It includes, however, but little that is of importance and considerable that is not. It gives more space to anatomy, to a fragmentary and not always accurate discussion of pathology and to laboratory findings than to clinical signs and bedside pictures. It does not go into particulars of nursing at all; its directions for treatment are marred by the repetition of such vague phrases as "careful after-treatment is necessary." It can scarcely be recommended to either nurse or doctor.

L. E.

Surgical Clinics of Chicago. April, 1919. Volume 3, number 2. Octavo of 479 pages. 63 illustrations. Published bi-monthly. Philadelphia and London: W. B. Saunders Company. 1919. Price \$10.00.

E. W. Andrews: Cholecystectomy and management of proximal stump of cystic duct; Use of kangaroo tendon and spun threads of tendon as substitutes for catgut; Multiple drilling of fractures. A. J. Ochsner: Fracture humerus; ununited fracture humerus; fracture of patella; double harelip and cleft palate. T. W. Brophy: Harelip. Carl Beck: Multiple papillomata of bladder; Syphilis of stomach; Restoration of cheek following extensive resection for carcinoma. C. B. Davis: Plastic repair deltoid muscle; Recurrent disloca-

tion patella. T. J. Watkins: Plastic operation for constriction at vaginal orifice and for vaginismus; Carcinoma of cervix treated by radium and hysterectomy. A. D. Bevan: Appendicitis; Appendical abscess; Carcinoma of cecum; Amputation at middle of thigh for gas gangrene; Abscess of lung; Congenital pyloric stenosis; Carcinoma of larynx. F. B. McCarty: Fracture carpal scaphoid. V. L. Schrager: Suggestion in technic of radical operation for carcinoma of breast; Routine appendectomy through right indirect inguinal hernial sac in afebrile cases; Syphilis of liver simulating gall-bladder pathology. B. F. Davis: Winged scapula. Wm. Hessert: Ununited fracture of neck of femur. E. L. Moorhead: Prolapse of uterus in virgin eighteen years old; Congenital inguinal hernia; Strangulated inguinal hernia complicated by acute gangrenous appendicitis; Infantilism. G. L. McWhorter: Diagnosis of fistula in ano. D. N. Eisendrath: Fractures of patella. Dr. Gatewood: Strangulated epigastric hernia. E. A. Printy: Postoperative diphtheric infection of hernia wound. R. H. Herbst: Severe hematuria; Prostatectomy for hypertrophy of prostate gland; Extensive stricture of urethra; Bilateral colon pyelitis with cystitis; Vasotomy in persistent seminal vesiculitis.

Clinical Microscopy and Chemistry. By F. A. McJunkin, M. D., Professor of Pathology in the Marquette University School of Medicine; formerly an Assistant in the Pathological Laboratory of the Boston City Hospital. Octavo volume of 470 pages with 131 illustrations. Philadelphia and London: W. B. Saunders Company. 1919. Cloth \$3.50.

McJunkin is a new writer in laboratory procedure and, from the standpoint of "new blood" in this field, is welcome. The book though, contains but little not found in other textbooks on the subject and as a result has little excuse for being. The chapter on the blood shows some individuality. There is a notable desire on the part of the author to keep the underlying biochemical changes and the blood findings in proper relationship. McJunkin's modification of the Rominowsky stain is given preference over others. Substantial evidence is brought forth to establish the entity of the endothelial leucocyte, including with this group those cells known as transitional and large mononuclear cells. The usual serologic tests are given including a fractional Wassermann test which lacks the more recent technical improvement. Blood chemistry is included.

Chapters on urine and bacteriology of exudates and gastric contents contain nothing new and many valuable tests are omitted. Under feces the various parasites are catalogued but not a line is written on technical matters. The autopsy work contains a few good suggestions pertaining to the handling of tissues and organs.

E. A. V.

Immunity

STOP THE JOURNAL.

To the Editor:

I am convinced that not one doctor in ten in California reads the State Medical Journal. If they did there would be more evidence of it in the correspondence column, and various policies and statements in the Journal would not go unchallenged in the local medical societies. Why not, then, stop publication of the Journal? The few papers in it of real scientific merit would appear elsewhere. The money now invested in the Journal would be saved for combating Eddyism and other quack cults, and for advancing the real interests of the doctors.

Yours for the best,

R. A. C.

Los Angeles, May 6, 1919.

REFERRED TO THE "BORED" MEDICAL EXAMINERS.

June 10, 1919.

To the Editor:

Why waste so much space on questions asked by the Board of Examiners? The seven columns in your May issue might have been used to better purpose. These questions may be of interest to future licentiates, but without appending the correct answers they do not educate your old, long since licensed reader. Nor do we get any gauge of our new licentiates—i. e., those who passed the exes—unless we know what answers "got by." And why do we not hear of oral and practical examinations and tests? The Board itself could have stenographers at these seances, and thus insure permanent records for the Board.

Yours very truly,
ONE OF THE BORED.

Los Angeles.

County Societies

ALAMEDA COUNTY.

Personal Reminiscences in England and Scotland during the year 1918 by Lieutenant-Commander Stanley Stillman, U. S. N. R. F., Director Navy Hospital No. 2 (Stanford Unit), was the subject of a most interesting and instructive talk at the regular May meeting of the Alameda County Medical Association. The speaker also showed a number of fine photographs taken during his service. Those who failed to hear Dr. Stillman missed a genuine treat.

Dr. Daniel Crosby gave a brief report of the Santa Barbara meeting. The Doctor felt that the meeting was one of the most inspiring that he had ever attended. Many men came to the meeting who had not been in the habit of coming to others and many well known faces were welcomed from abroad where they had gone to uphold the traditions of the profession.

The sections were well attended and while the papers were all instructive and interesting, some were exceedingly so. The Doctor thought that perhaps the most notable thing in connection with the entire meeting was the luncheon given by the League for the Conservation of Public Health.

Dr. Crosby said that among other things emphasized was the fact, that in his service to the sick man the doctor fails largely to enter into non-medical service to the community and up to this time has failed almost absolutely to obtain a proper community perspective with reference to the medical profession. The great lesson that every practitioner of medicine could have taken and should take from the meeting at Santa Barbara is that in addition to the active interest in the individual he must achieve to a wider community perspective in all things and especially is this true in connection with the affairs of, the standards of, and the very life details of the medical profession itself. Those of us who were so fortunate as to attend the last session of the California State Medical Society were fortunate indeed in having pointed out to us our place as citizens and as members of the greatest of all of the learned professions.

Mr. J. J. Donovan spoke of the objects of the Eve Strain Prevention School Desk and Seat—illustrating the same with lantern slides.

Dr. R. T. Stratton presented a case of surgical closure of a frontal fracture defect by the heteroplastic method and the use of a perforated plate of fine silver with peripheral flanges. The injury was received fourteen years ago. For the last five years the patient has complained of head heaviness, vertigo and headache. For two years general convulsions were added. In the ten weeks

succeeding the operation, there have been no unfavorable symptoms.

After the program a buffet luncheon was served.

The May meeting of the Samuel Merritt Hospital Staff Council was unusually interesting. Dr. A. Galbraith discussed "Symptoms of Nasal Pathology," with demonstration of transillumination of the accessory nasal sinuses, and Dr. William Fitch Cheney of Leland Stanford University read a paper on "Peptic Ulcer: Its Differential Diagnosis."

Prof. Samuel J. Hume of the Department of English in the University of California discussed the importance of the Drama and the Theater in Education and gave interesting results that had been obtained in the public schools throughout the State.

At the June meeting Dr. C. L. MeVey read a paper on Splenomegaly and Dr. S. H. Buteau discussed Drainage versus Removal of the Gall-Bladder. This subject elicited a spirited discussion among the surgeons present.

Publicity was the subject of Mr. Celestine J. Sullivan's address. After these meetings refreshments are served and a social hour is enjoyed.

Oakland's new Hospital to be erected by The Oakland Hospital Corporation, a corporation composed of professional and business men, is now an assured fact. This hospital is to be fire-proof, modern and absolutely up-to-date, and controlled by a Board of Directors elected by the stockholders, but the strictly medical interests will be handled by an Advisory Board elected by the medical and scientific members of the company. A building site has been acquired and the building plans are well under way.

Lieutenant-Colonel Alvin Powell received his discharge from the Army in New York and will return to California after attending the meeting of the American Medical Association.

Dr. J. N. Force has received the appointment of Associate-Professor of Epidemiology at the University of California.

Dr. Ruby Cunningham of Berkeley has just returned from the East where she was a delegate to the Y. W. C. A. meeting.

Dr. Edward von Adelung of Oakland is among those attending the meeting of the American Medical Association.

The Berkeley Dispensary is opening a Dental Clinic which will be equipped and maintained by the Junior American Red Cross. Through the efforts of Dr. R. T. Legge the Dispensary is also hoping to open a Clinic three nights a week for Venereal Diseases.

The following men have recently been appointed on the Visiting Staff of the Alameda County Hospital: Dr. W. H. Strietmann, Dr. F. M. Loomis, Dr. Chas. Miller, Dr. H. G. Thomas, Dr. H. G. MacLean, Dr. J. W. Calkins, Dr. Dexter N. Richards, Dr. T. J. Clark, Dr. F. H. Bowles, Dr. E. S. DePuy, Dr. E. N. Ewer, Dr. W. A. Woods, Dr. C. A. DePuy, Dr. T. C. McCleave.

LOS ANGELES COUNTY.

The Los Angeles County Medical Association met May 1 at 8.15 p. m. in the Arrow Theatre of the Hamburger Building.

The President, W. T. McArthur was in Sacramento to help prevent passage of Assembly Bill 933. Doctors Beckett, Moore, MacGowan, and others accompanied him for the same purpose. Dr. George L. Cole presided.

Major Ansel G. Cook of Hartford, Conn., spoke on the "Problems of Orthopedic Surgery."

Dr. Cook spoke in a humorous vein, that orthopedic surgery is the broadest specialty; in fact it is so broad that it is not a specialty, and the orthopedist is considered an unmitigated nuisance who butts into every specialty. The orthopedic surgeon is the descendant of the bone setter of yesterday and is tolerated. The old-fashioned bone

setter did things the community wanted done. He will exist as long as members of the profession do not do what the public wants. The laity determines it. If an ankle drags, whether it is due to cerebral paralysis, syphilis, a Pott's fracture, or such like, the orthopedist has to know all of these different things. The orthopedist must be a mechanic. The idea is a balance of bone and muscle. To fit shoes, he has to see the patient as a whole. In balance Dr. Lovett of Boston looked for the center of gravity. It pulls all the time. A body acts statically as if a center of gravity; a pyramid on its apex would be insecure. A dancer has the center of gravity over the base. Wolff's law operates when any part of the body is held in an unnatural position, the bone alters its structure for the new position. Nature tends to cure a certain amount of deformity.

Bow legs can be corrected as the bones are soft. Knock-knees legs are not strong enough to hold the body. Up to four years old the patients can be cured with braces. After seven years the bones become hard. The braces must be worn from six to ten months. Be prepared to put on a mechanical appliance. This will be done until surgeons use splints. Knock-knee requires brace, shank or broad heel and arch inside to change the balance by throwing the weight to the outer side. Raise the inner side of the shoes. There is flat foot when the posterior arch falls down. The bones are held by ligaments and moved by muscles in the calf of the leg. When the ligaments become elongated, the foot drops. If a plate is put higher than arch, you will cause atrophy. Women say they cannot wear low heeled shoes. When the shoe is too short the arch cannot fall down.

The anterior arch falls down in case of callosities. Morton's toe is when the fourth bone pinches the nerve of the fourth toe. It slips out four and five times a day. Put pad under the bone, if uncomfortable use a felt pad to hold up the anterior heel, and thus remove pressure from ball of foot. The balanced position will relieve pain.

Dr. Clarence G. Toland had for his subject, "Service in General Hospital, U. S. Army." He praised the regular army officers who taught the volunteers discipline, etc. The latter were soon convinced that the regulars were superior in knowledge. He spoke of the U. S. General Hospital of modern methods, team work, equipment, etc.

Dr. Albert Soiland on "The Lay Radiographer" defined how the work of laymen differed from that of the professional roentgenologists. Dr. Bowman in discussing Dr. Soiland's paper, said that the secret of success is in the interpretation. Internists know how hard it is to interpret and cannot expect a layman to do so. These laymen cannot exist if physicians stopped supporting them. Send for the roentgenologist.

A vote of thanks to Major A. G. Cook was moved by Dr. Richardson and unanimously carried. There was no meeting May 15 because the Southern California Medical Society had its program May 14 and 15 in Riverside, which many of the Los Angeles County Medical Association attended.

Eye and Ear Section.

Regular meeting May 5, at 8 p. m. Place: Dr. Kelsey's office, 1005 Brockman Building.

Program.

"Symposium on Eye Injuries." Drs. F. W. Miller, T. J. McCoy and W. H. Dudley.

Harbor Branch.

Regular meeting April 25. Dinner at 6.30; program at 8.00. Place: Dining-room of "Puss 'n Boots," 140 Pine avenue.

Program.

"Observations of Influenza at Camp Logan," Dr. E. R. Harvey.

"Control of Venereal Diseases," Dr. A. W. Buell. "Contagious Disease" (Meningitis), Dr. H. J. Pruett.

"Treatment of Pneumonia," Dr. R. W. Wilcox.

Discussion opened by Dr. F. D. Sweet. Returning members of the Medical Reserve Corps special guests.

Los Angeles Obstetrical Society

Officers—President, P. O. Smith; Vice-President, E. M. Pallette; Councillor, Lyle G. McNeile; Secretary-Treasurer, Lyle G. McNeile.

Last regular meeting of the year—Time: Tuesday, May 13, at 8.15 p. m. Place: Office of Vice-President, 1501 S. Figueroa St.

Program.

Demonstration of a Combination Instrument Sterilizer and Douch Can, Neal N. Wood.

"Arm Extraction in Breech," Lyman E. Thayer.

"The Los Angeles Maternity Service, A Municipal Dispensary," Lyle G. McNeile.

Anesthetists.

On the evening of May 6, 1919, there was formed an organization to be known as the Southern California Society of Anesthetists, of which Dr. F. D. Bullard was elected president. All physicians interested in anesthetics, who are members in good standing of their County Medical Society, are eligible to membership.

Base Hospital Unit is Home.

Members of the Base Hospital Unit, No. 35, has entrained for Camp Kearny, where the 103 men and three officers will be mustered out. The unit is in command of Captain Eliot Alden, of Los Angeles, and the other officers are Lieut. H. A. A. Payette, of Los Angeles and Lieut. H. A. Lille of South Pasadena.

The unit which is composed entirely of Southern California men, most of them from Los Angeles, was organized and outfitted here by the Los Angeles Chapter, American Red Cross, and left Camp Kearny for France, July 4 last, 200 strong, including 100 young women nurses recruited by the Good Samaritan Hospital. By August 10 the unit was established in its own 1000-bed hospital at Mars-Sur-Allier, France, where, in all, ten hospital units were located to care for the wounded and sick. From the time the unit established its hospital until it entrained for home, Capt. Alden stated, that it handled more than 7000 cases. In October, during the height of the Argonne fighting, the hospital handled at one time more than 2800 cases, though the capacity was established at 1000. Later during the influenza epidemic which struck the army, the members of the unit worked night and day.

The Women's Auxiliary of Base Hospital Unit No. 35 gave an entertainment and dance at the Armory in honor of the members of the unit. There were about 300 persons in attendance including 100 members of the unit. A program of music was given and Mrs. Walter Chase, president of the Auxiliary, welcomed the returning men. Home-made pies, cakes, and punch were served.

Makes Them Hygienic.

While he was in the East, Dr. J. L. Pomeroy, County Health Officer, got an idea. This idea has crystallized into what is now known as industrial hygiene. It means educating foreign help to become good, clean American citizens. Recently Dr. Margaret Farr, deputy county health officer, held a meeting in one of the cottages in Simon's brick-yards. The cottage has been given over to the county for this purpose, and is a headquarters. There are 51 Mexican families employed in the brick-yard and Dr. Farr, by the system, is teaching these Mexicans hygiene and efficiency. The work will be carried into other big corporations which have offered every facility.

Units May Wear Decorations.

Sanitary sections Nos. 539 and 625 were added

to the United States Army units authorized to wear the fourragere of the French Croix de Guerre and Sanitary Section No. 646 to those which may wear the fourragere of the French Medaille Militaire.

Druggists' Display.

Great interest in California drug circles is centering in the drug show to be held in connection with the thirteenth annual convention of the Pharmaceutical Association in this city next Tuesday, Wednesday and Thursday. Hall A in the Exposition Auditorium has been reserved for the exhibits which are expected to embrace nearly every product in the drug trade world, as well as sundries.

Alhambra Hospital.

Contract has been awarded for the erection of a hospital on the corner of Bay State and Commonwealth streets. The building when completed will be one of the most modern and complete hospitals in Southern California, and is being erected by the Alhambra Hospital Association, with Dr. C. B. Alexander at the head. It is estimated that the building will cost from \$20,000 to \$25,000.

Personals.

Dr. Ralph Hagan enlisted in the Army at the outbreak of the war and was immediately assigned to Camp Kearny, where he became acting chief surgeon of the base hospital, serving in that capacity until October 1918, when he was commissioned as chief surgeon of unit No. 96 for service in France. He saw active service with the American troops at the front for a number of weeks before the signing of the armistice. Dr. Hagan served terms as police surgeon of this city and did much pioneer surgical work, being, it is said, the first surgeon in California to use with successful results the now celebrated Murphy button.

In recognition of his patriotic labors in this city during the late war with Germany, Dr. Ralph L. Taylor, city health officer, who was breveted a Captain upon his discharge from the Army, after the Spanish-American War, received from Washington a commission of Major in the Medical Reserve Corps. Major Taylor was appointed health officer by James R. Williams, Commissioner of Public Safety.

Dr. Joseph D. Condit, a well known Pasadena surgeon, who was a Major in the United States Medical Corps in the war and who returned from France three months ago, was seriously injured this afternoon, when he was thrown from his horse. His right thigh was broken. Dr. Condit was riding on Yosemite Drive near the Arroyo Seco. His horse stepped into a gopher hole, throwing Dr. Condit to the ground. He is now a patient at the Pasadena Hospital.

Dr. John Y. Oldham, who served with the rank of Captain in the Medical Corps at Camp Kearny, has returned to Los Angeles and resumed practice.

Lieut. Edward R. Brainerd, Jr., son of Dr. Edward R. Brainerd, left an estate of \$100,000 according to a will filed for probate yesterday. He died on February 16 at Camp Zachary Taylor, Ky., while in military service. In the will which is holographic, he leaves his entire estate to his mother.

Capt. A. T. Newcomb, U. S. A. Medical Reserve Corps, in Pasadena, has just returned to his home and practice after nine months in army service. Capt. Newcomb was the chief of the medical service at Camp Kearny Base Hospital. "It is planned to have Camp Kearny as the post for the fourth division of the Regular Army, to be organized at once," said Capt. Newcomb. "The Base Hospital at Camp Kearny cost more than \$2,000,000 and comprises about sixty buildings. It is situated about two and one-half miles from Camp Kearny proper. The medical and surgical departments

comprise twenty buildings each. The hospital has been receiving an average of three trains a week of convalescent and ailing soldiers, and the work will continue for many months to come. The spirit of the convalescents is wonderful, and in return the War Department is giving the boys the best of care and performing extraordinary work in 'reconstruction' and re-education of disabled men. At the Base Hospital a man is taught any trade or profession he chooses and which his disability enables him to take up."

Lieut.-Col. Frank C. Wiser, who left here with the One Hundred and Fifty-seventh Field Hospital, has been placed in charge of the Children's Welfare Commission of the American Relief Association in Rumania, according to a letter received from the Colonel by Mrs. Wiser. The Children's Welfare Commission is an institution started by the Queen of Rumania and taken over by the American Relief Association, and, in his letter, the Colonel says his duties are to get the commission running smoothly. The One Hundred and Fifty-seventh Field Hospital Unit has been ordered home and, it is believed, is now on the seas. Lieut.-Col. Wiser is well known in this city, where he has practiced medicine for many years. He joined the army several months ago and has seen considerable service in France. He is now in Paris.

REPORT OF A CASE OF LETHARGIC ENCEPHALITIS.

NANNIE C. DUNSMOOR, M. D., Los Angeles.

E. G. (colored), aet. 11, had a severe attack of influenza, December 15, 1918, to January 1, 1919. He was apparently well until February 1, 1919, when he began to be drowsy. He complained of "not feeling well," and had some frontal headache and diplopia. His teacher took his temperature, which was 101 2/5°. She sent him home. He began to sleep more each day until February 15, when he was in a profound stupor. He could be aroused to take very small quantities of milk or water. Urine became scant, as low as 6 ounces in 24 hours. He was very constipated. Temperature and pulse were normal most of the time, then became subnormal.

February 20—Pulse was 30, temperature 97; extremities were cold. There was some stiffening of muscles of neck, back and legs. Pupils were even, responded to light. He would remain in the position placed, nothing aroused him; he did not move when being cared for. Urinalysis showed Sp. gravity 1030; no albumin, no casts. When he began to recover, speech was very slow and he seemed slow of comprehension. He was in that stuporous condition about 12 days, but gradually regained his normal condition. March 15 he was apparently well. Dr. Ross Moore discussed the case, saying he had had six cases with third nerve involvement, but the stupor was not so profound.

SAN FRANCISCO COUNTY.

Society Meetings.

Proceedings of the San Francisco County Medical Society.

During the month of May, 1919, the following meetings were held:

Tuesday, May 6th—Section on Medicine.

Children's Hospital Clinical Evening.

1. Diagnosis and treatment of epidemic meningitis. E. C. Fleischner.
2. Case presentation: Drainage of an empyema through an abscess cavity in lung. R. L. Ash.
3. Activities of the San Francisco Association for the Study and Prevention of Tuberculosis. M. W. Cain.
4. Presentation of an unusual case of anemia. F. M. Holsclaw.
5. Retrospect of 14 years' experience in pyloric stenosis of infants. Langley Porter.

Tuesday, May 13th—General Meeting.

1. Bactericidal and therapeutic actions of chaulmoogra oil in leprosy and tuberculosis. E. L. Walker.

2. Aviation medicine—illustrated by War Department films. Henry Horn.

Tuesday, May 20th—Section on Surgery.

The Surgical Section held its meeting at the Letterman General Hospital, where the Commanding Officer, Lieutenant Colonel E. G. Northington, and his staff, demonstrated cases of interest to civil surgeons. After the meeting a supper and smoker were held.

1. Principles of treatment of shoulder joint after injuries and wounds; case demonstrations. Lieut.-Col. W. I. Baldwin.

2. Plastic amputations; case demonstrations. Major Leo Eloesser.

3. Bone grafts for the restoration of defects in bone; case demonstrations. Captain Sylvan Haas.

4. Weak and painful feet; case demonstrations and corrective appliances. Lieutenant T. J. Nolan.

5. Congenital absence of radius and thumb. Captain F. P. Topping.

6. War and the psychoses. Captain G. E. Meyers.

7. Arterio venous aneurism of arm; case demonstrations. Captain F. N. Chessman.

8. Operative treatment of peripheral nerve injuries; case demonstrations. Lieutenant Colonel H. C. Naffziger.

Tuesday, May 27th—Section on Eye, Ear, Nose and Throat.

1. Presentation of cases. (a) Angioma of middle ear. W. B. Stephens. (b) Sarcoma of naso-pharynx. Henry Horn.

2. Use of homatropine in refraction. Percy Sumner.

3. Some unusual cases of glaucoma. Hans Barkan.

4. Some experiences in the Army. H. A. Fletcher.

SAN DIEGO COUNTY.

The Southern California Medical Society recently held in Riverside was liberally attended by San Diego doctors, who reported a profitable and enjoyable time.

The League for the Conservation of Public Health seems to be steadily gaining members and support throughout San Diego County.

The dinner meeting of the County Society held at the San Diego Hotel May 13 was entertained by a delightfully informal talk on medicinal observations in France by Robert Preble, Lieut. Col. M. C., U. S. A., of Chicago. Dr. Preble speaks from the viewpoint of the internist, with a freedom and vividness of sketching that makes for real entertainment.

The second meeting of the Society in May was featured by informal talks by Drs. T. O. Burger, A. E. Banks and E. A. Frauer, all of whom have recently returned from France.

The next meeting will be devoted to reminiscences of medical practice in the early days of organized medicine in San Diego county, the honor guests of the evening being all men who have practiced therein in the past quarter of a century.

The second meeting in June will take the form of a dinner and dance at the Point Loma Country Club, to which all members are expected to bring their ladies.

Dr. J. F. Grant has received his honorable discharge from service at Rockwell Field and resumes his practice as oculist with offices in the American building.

Dr. John C. E. Nielsen is taking a course at

the Trudeau School of Tuberculosis at Saranac Lake, N. Y.

The Society has adopted the policy of discontinuing meetings for a summer vacation during the months of July and August.

SANTA BARBARA COUNTY.

On May 30 at the call of Dr. Samuel Robinson a few interested physicians met at Dr. Robinson's home where a Journal Club was formed, the officers of which are as follows:

President, Samuel Robinson, M. D.; Secretary, C. S. Stevens, M. D.; Librarian, R. W. Hartwell, M. D.; Censors, Rexwald Brown, M. D., R. Manning Clarke, M. D., C. S. Stevens, M. D.

The Club will meet on the first and third Tuesdays of each month.

TULARE COUNTY.

The regular monthly meeting of the Tulare County Medical Society was held at Hotel Johnson, Visalia, June 1. About twenty-five members were present to enjoy the dinner and welcome back a number of their members who have been away on Government service.

Dr. W. W. Richardson of Los Angeles presented the principal paper of the evening on, "The treatment of some fractures by mobilization and massage."

The Kings-Tulare counties joint tubercular sanitarium was opened at Springville June 6 with a basket picnic to which the public were invited. Mrs. E. M. Tate-Thompson representing the State Board of Health was present and made an address. A number of talks followed by those interested in the different aspects of the work.

Notice**SOCIETY MEETING.**

The Pacific Coast Oto-Ophthalmological Society will hold its annual meeting in San Francisco, August, 4, 5 and 6. Many important papers are promised for the program. Address all correspondence to the Secretary, Dr. A. S. Green, Shreve Building, San Francisco, Cal.

Red Cross Snap Shots

The following facts will show the rapid and tremendous growth of the Red Cross in its expansion from a domestic relief organization to a world-wide war relief agency:

The first enrollment in December, 1917, brought the Red Cross membership to 22,000,000.

The second fund drive during the week of May 20 to 27, 1918, was oversubscribed by millions above the hundred million asked for. Contributions to the second war fund drive totaled \$180,623,106, more than 88 per cent. of which has been collected.

At the end of the fiscal year, June 30, 1918, 8,512 persons were employed in an administrative capacity at National, Divisional and Foreign headquarters of the Red Cross. More than 8,000,000 volunteers served in the 700 canteens.

Forty thousand persons were engaged in Red Cross Home Service Work, and the amount expended for relief each month ranged from \$177,000 to \$315,000.

By the end of the fiscal year the Red Cross, being a recruiting agency for the Army and Navy Nurses Corps, had enrolled 20,530 nurses.

An idea of the extent of the work undertaken by the Red Cross mission to Greece may be gained from the fact that on one day 126 carloads of refugees containing 7,150 persons, were provided with 12,500 rations. On another occasion, at Tynovo-Siemen, 1,500 refugees were given rations, the sick

given emergency attention, 385 were clothed, 1,637 garments were distributed, 5 refugees were buried, and the train started for Dedeagatch, all within five hours.

Department of Pharmacy and Chemistry

Edited by FELIX LENGFELD, Ph. D.

Help the propaganda for reform by prescribing official preparations. The committees of the U. S. P. and N. F. are chosen from the very best therapeutists, pharmacologists, pharmacognosists and pharmacists. The formulae are carefully worked out and the products tested in scientifically equipped laboratories under the very best conditions. Is it not plausible to assume that these preparations are, at least, as good as those evolved with far inferior facilities by the mercenary nostrum maker who claims all the law will allow?

Every physician must re-register under the Harrison Anti-Narcotic Act for the period of one year from July 1, 1919, to June 30, 1920. The law requires him to register before the first of July but in past years the Internal Revenue Department has allowed thirty days grace before imposing a penalty. Every physician should attend to this at once, if he has not already done so.

Every physician has undoubtedly received from the Department a blank application form, a blank inventory slip and full directions regarding the whole matter. He should read these directions carefully and follow them exactly.

Unfortunately, many physicians seem to regard the men who are charged with the enforcement of this law as their personal enemies and do everything they can to hamper the work. As a matter of fact the deputies are an overworked patient lot of men who must follow the instructions they receive from Washington and have no discretion in the matter. They have always shown themselves willing to co-operate with the physician and have many times closed their eyes to violations of the law when they were convinced that this was due to ignorance or even carelessness and was not willful. Every physician knows that this law is necessary, even if it does, at times, work hardship and discomfort. He should bear in mind that this cannot be avoided and that the deputy will do all he can to make things as easy as possible for him.

The Council on Chemistry and Pharmacy has refused to admit two new and non-official remedies, some of the "colosols" or colloidal solutions offered for sale to the medical profession. Probably some colloids in colloidal solution are more readily absorbed by the colloids of the body than are the same substances in suspension or in true solution and some colloidal solutions are perhaps less poisonous and have greater therapeutic value than the same substances otherwise administered. However, the physician should bear in mind that we know very little regarding the true nature of colloidal solutions notwithstanding the great advance in the theory of true solutions and the work done with the ultra microscope.

Neither the chemist nor the physician can predict just how colloidal solution will act, much less the physiologist or pharmacologist whose

problem is so much more complicated. The advertising man and the detail man have an excellent line of scientific patter which dazzles the physician, and which may be entirely false or may have no bearing on the subject in hand. Much laboratory and clinical work are necessary on every new colloidal solution before it can be accepted as a valuable therapeutic agent with any degree of confidence.

"Colosol" cocaine, (Colloidal Sol) claims to contain 1% of cocaine and to be much less poisonous than ordinary cocaine but to have the same therapeutic effect. Laboratory and clinical work showed it to be less poisonous than a 1% Sol of cocaine, but a chemical analysis showed it to contain only .26 to .40% cocaine instead of 1% as advertised and to be just as poisonous and no more efficacious than the solution of cocaine of this percentage.

Colosol Manganese was found by a British Commission to have no effect on Malaria in the doses recommended.

Colosol Copper or Cuprase, has been advertised for cancer but seems to have no effect on that disease.

About fifty years ago Colloidal Iron or dialized iron, claimed to have all of the good and none of the bad properties of ordinary iron salts, but time and experience have not justified these claims.

There seems to be a peculiar fascination to Iodine that leads the manufacturers of nostrums to present it to the medical profession with all kinds of extraordinary claims. It is difficult to see any reason for this as there are enough official preparations of iodine to satisfy every use to which this drug may be put. We need only mention, iodides of potassium, sodium, ammonium, strontium, etc., tincture of iodine which is miscible with water in all proportions, syrup of hydriotic acid, syrup of iodide of iron, iodine ointment, etc. Campeteodin is one of the latest of the proprietary iodine preparations. It claims to contain iodine in an oleaginous solution, two strengths No. 1 and No. 2, the latter being twice as strong as the former. An examination proved that the iodine was practically all combined with the oleaginous solvent and that No. 2 does not contain twice as much iodine as No. 1.

Iodex is another of these preparations claimed to have all the good and none of the bad qualities of elementary iodine. Iodex, according to the advertisements, contains 5% of iodine "therapeutically free, an embodiment of vaporized iodine in an organic base." This may be all right but it is difficult to understand just what it means and it is needless to say that the Council has not admitted it to the N. & F.

Carminzyn Tablets claim to be a mixture of pancreas extract, calcium carbonate, soda bicarbonate and Epicac with carminatives. It was rejected by the Council as irrational and tending to lead to slipshod prescription.

Peptinzyn Tablets were found to have no effect on fats or carbohydrates in the test tube. The claim made by the manufacturers that, though inert in the test tube it does good work in the body, is one that cannot be proved or disproved but seems to have no justification.

Vercolate Tablets were found in 1915 to be unscientific in composition and exploited under false claims.

Many physicians have received circulars concerning the bacteriological properties of Tyres Powder. The work seems convincing but the physician should bear in mind that these tests were made in 1889 on a powder which was entirely different from the powder on the market today, and draw his own conclusions.

VOCATIONAL STUDY OF TUBERCULOSIS.

A vocational study of tuberculosis is being made for the purpose of obtaining information of the various experiments that have been tried in institutions in the country that have been at all successful in employing arrested cases of tuberculosis. "Fortunately," said Mrs. E. L. M. Tate Thompson, Director of the Bureau of Tuberculosis, "this State can offer two splendid examples of work of patients. Arcuipa Sanatorium, in Marin county, for working girls, maintains an open air pottery. The girls are paid for their work, and at present are filling an order for decorative tile. The Barlow Sanatorium, outside of Los Angeles, is another semi-philanthropic sanatorium, whose patients work as part of their cure when they are well enough. A great deal of practical work, such as gardening and building of walks, is being done."

"The public must be prepared to accept these patients back into industrial life," continued Mrs. Thompson. "There is no doubt but that last year there were very many men discharged with tuberculosis; and it was most discouraging attempting to place them in positions they had held formerly."

"The man who is cured of tuberculosis has learned his lesson and, from a public health standpoint, is an asset to a community. Compare him with the man who wants his windows closed, who is careless in his habits, and the problem of vocational study simplifies itself."

In an address, delivered before the recent New Jersey Joint Conference on Tuberculosis, Krause, of the Johns Hopkins Medical School, attempts a review of the anti-tuberculosis movement and indicates how our measures of prevention and control should be supplemented and enlarged so as to square with the shifting point of view that the newer knowledge of the disease of the last ten years has brought us.

Not all the diminution in the tuberculosis mortality rate may be ascribed to our intentional efforts. Much is undoubtedly due to the broad social and economic movements that have brought about better living conditions. Since the application of the Pirquet test we have learned that tuberculous infection is practically

universal. It is therefore at least questionable whether efforts at prevention and control should be too largely concentrated on the prevention of infection. Infection, of itself, is of comparatively minor importance. It is the development of infection into clinical disease, into manifest tuberculosis—that we are really concerned with and should make every effort to prevent.

Krause pleads for a better appreciation of this phase of the situation and asks for renewed effort for the expenditure of money without let-up, for what amounts to the unremitting and universal education of physicians and laymen in the truths of tuberculosis, and for a broadening and intensification of the work of the National Tuberculosis Association. He concludes:

"Nor is there room in the anti-tuberculosis movement for a single note of discouragement. The pessimists among us can be only those who are deficient in grasp and breadth. Civilization and tuberculosis are contemporaneous; the number of the tuberculous and the number of civilized beings are almost coequal; therefore, to despair of tuberculosis is to despair of civilization. A graft that is as much a part of us as is the development of our ethical sense cannot be lopped off in a day; but it can be kept from flowering and bearing fruit. And until we can wage direct warfare on the germ, to keep it in the seed should be our main purpose."

Krause, Allen K., Anti-tuberculosis Measures, American Review of Tuberculosis, 1918, Vol. 2, No. 10.

New Members

Fletcher, Harold A., San Francisco.

Wood, Neal N., Los Angeles.

Magan, Wellesley P., Covina.

Thurber, Packard, Los Angeles.

Murray, J. T., Los Angeles.

Waters, O., Long Beach.

May, H. Cameron, Los Angeles.

Deaths

Dalton, John C., a graduate of the Starling Medical College, Ohio, 1874. Licensed in California, 1901. Died in Pasadena, Cal., May 19, 1919.

Freeman, Gideon M., a graduate of Physicians and Surgeons, Baltimore, Md., 1870. Died near San Jose, Cal., June 10, 1919.

Smith, H. W., a graduate of Rush Medical College, 1870. Licensed in California, 1880. Died in Folsom City, Cal., at the home of his daughter, Dr. L. Etta Farmer.

A PRESCRIPTION

How to Kill a County Society

1. Don't come.
2. If you do come, come late.
3. If too wet or too dry, too hot or too cold, don't think of coming.
4. Kick if you are not appointed on a committee, and if you are appointed, never attend a meeting.
5. Don't have anything to say when you are called upon.
6. If you attend a meeting, find fault with the proceedings and work done by other members.
7. Hold back your dues, or don't pay them at all.
8. Never bring a friend whom you think might join the society.
9. Don't do anything more than you can possibly help to further the society's interests; then, when a few take off their coats and do things, howl, "This society is run by a clique."

California State Journal of Medicine

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Ventura.....Dr. C. A. Jensen, Ventura
Yolo.....Dr. Frances L. Newton, Woodland
Yuba-Sutter.....

Contributors, subscribers and readers will find important information on the sixteenth advertising page following the reading matter.

VOL. XVII

AUGUST, 1919.

No. 8.

TO OUR DOCTORS

Their dignity, their motor cars, their ease
And well-earned fees
(Those comfortable fees,
Those fees concerning which we've often joked them
In ways that may have, more or less, provoked them)
Ungrudged they left behind, and marched away
In soldier khaki clad, on soldier pay,
To face Disease and Death in grimmer guise,
In hospital or field.
Beneath their own or alien skies,
Through miseries and horrors unrevealed.
They toiled to save, for Pity's gentle sake,
The human wreckage tossed in War's red wake.

Small glory, less reward
Our usages accord
To these who shared the danger, woe and pain,
Yet have no tale to tell of foemen slain.
Unlit by flash of sword,
Their homely epic ends
With thousands of our gallant boys restored.
So let us fill
Our cups with any liquid that may still
Be mingled by our beverage-concocters,
And pledge those quiet heroes, greatly daring,
Who gave themselves with cheerfulness unsparing—
Our Doctors!

ARTHUR GUTERMAN.

Steadfast and keen and strong, they never failed,
Though rounds were overlong and helpers few;
And, through their patient care, our soldiers knew
That men who at no ghastly service quailed,
Who did their utmost for each lad that ailed,
Were fighters just as strenuous and great
Against the ruthless harvesting of hate

As those who death-wired trench or lookout scaled.
They braved continuous rain of shell and shot
To succor in a conflict's instant need,
And always dangers or fatigue forgot
At any chance to do a kindly deed:
They gave their country heart, and mind, and skill,
And saved men, flesh and soul, to serve her still.

CHARLOTTE BECKER.

The ode and the sonnet above quoted demonstrate that truth and poetry may be gracefully combined. They also demonstrate that "Life," from which they are taken, is sometimes true to life.

LEAGUE RALLY AT SAN DIEGO, SEPTEMBER 9

San Diego county physicians are making great preparations for a banner meeting on September 9th. This first meeting after the vacation period will be devoted to a grand rally of the Southern California members of the League for the Conservation of Public Health. As September 9th is a legal holiday large delegations from Los Angeles, Orange, Imperial and Riverside Counties are planning to be present.

Speakers from San Francisco and Los Angeles will discuss questions of vital importance to the medical profession. The meeting will be held in the Assembly Hall of the San Diego County Medical Society in the American Bank Building.

The San Diego County Medical Society extends to all physicians and surgeons a cordial invitation to attend this meeting. An interesting, entertaining and informative program is assured.

Mark your calendar for Tuesday evening, 8 p. m., September 9th, and spend the evening pleasantly and profitably with the San Diego County Medical Society.

THE LEGAL DEPARTMENT.

Our Legal Department has been in existence since July 1909. From time to time we hear the question, "What is our Legal Department for?"

Any one familiar with the conduct of the executive offices of the Society does not remain long in doubt on the question of the function and necessity of this very essential part of the Society's activities.



It is a pleasure herewith to publish a likeness of the Chief Counsel of the Medical Society of the State of California, Mr. Hartley F. Peart, of San Francisco. The present excellent legal situation and smoothly running organization of the State Medical Society represents in no small part the work and personal interest of our Chief Counsel.

In the ten years of its existence, the Legal Department has stood between hundreds of our members and ignorant or designing persons who were endeavoring through the courts to place upon the physician the responsibility for those ills to which the human flesh is heir. It would appear too obvious for comment to say that a physician is not a warrantor of cures, and yet the courts have frequently been called upon to announce this self-evident axiom.

We suspect that the query with which this article opens emanates only from men who have not been threatened and served with complaints asking judgments anywhere from \$10,000 to \$75,000 for failing to do in a given case what no human being, no matter how skilled and experienced, could do. Such claims and complaints are not, as is sometimes erroneously thought, limited to men fresh from college or men who have not perhaps enjoyed the fullest opportunity for preparatory work before engaging in active practice, but

on the contrary, such threats and actions are indiscriminately made and filed against old and young, the general practitioner and the specialist, the country doctor and the university staff surgeon. And at such times the Legal Department with its many years of experience and precedent, and its direct personal interest in each member of our organization, takes full charge of the situation. That its personnel is efficient and loyal and that such claims and suits are almost universally without merit, our legal defense files for ten years bear convincing witness.

Within the past two years the scope of activities of our legal staff has been greatly widened. The Council and officers of the Society have brought the attorneys into much closer contact with all the Society's work and undertakings in all matters of general policy, and needless to say to the great benefit of our organization.

The Medical Society of the State of California is, we believe, to be congratulated upon this splendid department which, so far as we know, has no rival anywhere.

THE INDEMNITY DEFENSE FUND

At the annual meeting in 1916 it was determined to establish a voluntary defense fund against claims and suits for alleged malpractice, open to all members in good standing who elected to take advantage of its terms. The initial assessment was placed at \$30 and it was decided to put the plan into effect at such time as three hundred members signified their desire to avail themselves of such indemnity and had sent in their assessments.

December 6, 1916, the three hundred checks were received and early in 1917 the council directed our general attorney to prepare the necessary rules and regulations for the conduct and operation of the Indemnity Defense Fund. This work consumed several months, as our legal staff made a careful review and study of all phases of the matter before definitely proposing to the council a carefully worked out plan covering all the details involved.

At the annual meeting held at Coronado in April, 1917, the complete organization was ready. A board of three trustees was elected by the council to administer the fund under the "Administration Regulations." Dr. William Ellery Briggs, Dr. Lemuel P. Adams and Dr. Andrew S. Lobinger constituted the members of the first board.

The funds were placed on deposit in three savings banks. Copies of the Administration Regulations were filed with each county secretary. Rules defining the extent of the indemnity, fair and equitable to the individual and to his fellow members, were adopted and a copy furnished to every member of the Fund.

Although very little has been done to urge the members generally to join the Fund, its membership has grown until it now has some four hundred and seventy-five members. It has been in operation since December 6, 1916. During that period no member of the Fund suffered an adverse judgment and but two settlements

have been made out of its resources, aggregating less than \$1,000 in all.

From the foregoing figures it conclusively appears that the expense for loss per member per annum is considerably less than \$1.00.

With this splendid record of achievement, we again urge as we have repeatedly urged heretofore, that every member of the Society who has not joined the Fund, do so. The assessment is not annual. The members of the Fund have paid only one assessment to date. Another assessment will only be levied when necessity arises.

This undertaking of the Society is meritorious, of great benefit to each individual and no member in active practice can afford to delay joining any longer. Mail your check to the Secretary's office to-day.

ADDITION TO EDITORIAL STAFF OF JOURNAL.

In this issue of the JOURNAL we are presenting a speaking likeness of Mr. Celestine J. Sullivan, so that the few who have not seen and heard him may know what manner of man he is. Mr. Sullivan, who was unanimously chosen at the Santa Barbara Convention to fill the newly created position of Managing Editor of the JOURNAL, is not only a writer of stimulating and clear-cut English but a forceful and convincing speaker. On the occasion of his last nation-wide speaking tour he was characterized by the New York Advertising Club as "The golden-tongued Orator of the Golden West." His work in publicity and advertising has received the encomiums of the national leaders in that important field. He has conducted many successful and large campaigns.

The Journal is looking ahead and planning for next year and the years thereafter—planning not only to keep its readers in touch with the best scientific progress of today, but also to keep the public advised of the progress of scientific medicine, of what the ethical medical profession is doing and why we are doing it.

To interpret scientific facts in lay language that will arrest and hold attention; to view the true mission of modern medicine in its proper perspective to the common good; to expose popular fads, fancies and fallacies; to discuss the relation of medical service to industry and social problems that are the cause or effect of preventable disease; to analyze proposed legislation and kindred questions relating to the promotion and development of the greatest resources of the state—the public health, and to take out of cold storage, warm up and get into general circulation the priceless fund of disease prevention and health information accumulated by scientific research will be some of the duties of our Managing Editor.

The imperative need for greater popular health

education was revealed by the startling statistics of the selective draft. Thirty-three per cent. of the flower of our manhood was rejected for minor or major physical defects, and 60 per cent. of this 33 per cent. were rejected for defects contracted through ignorance and neglect. The relation of the physician to the public has been rapidly and radically changing. The doctor always was a teacher of health in a private way, but the knowledge which the medical profession now possesses of communicable diseases, and the realization that disease prevention depends upon community co-operation, places a civic responsibility upon the profession to inform the public. Publicity is the most direct medium through which to reach the public. The new member of our staff is thoroughly acquainted with the ethics of the medical profession in reference to publicity, but knows the



functions of publicity and how and when and where to use it effectively.

We are at the threshold of the greatest popular health revival this country has ever witnessed. The fact that more than 93 per cent. of the 2,000,000 officers and men, who have been demobilized since the signing of the armistice, were discharged with a clean bill of health, has emphasized the value of physical examinations and hygienic directions. The health lessons of the war should be applied to our cities, states and nation. To accomplish this we must create a healthy public opinion. The constant purpose of the League for the Conservation of Public Health, of which Mr. Sullivan is executive secretary, is to do this very thing. The clients and readers of The Journal will be the beneficiaries of the constructive work in which the league is engaged.

PRIVATE ENTERPRISE AND PUBLIC HEALTH PROMOTION.

At this time when the war on disease is gathering fresh allies every day, when clubs, centers and agencies are devoting earnest attention to community nursing, child welfare, better housing for working girls and countless industrial problems, when the greater need for adequate health education is being stressed by many mouths, it is interesting to review a campaign of health education which began in 1908.

The service was inaugurated by Dr. Lee K. Frankel, Vice-President of the Metropolitan Life Insurance Company, in a small section of New York City under the supervision of the nurses of the Henry Street Settlement. From that modest beginning the service has spread rapidly until today it is successfully conducted in 46 States of the Union, and in Canada reaches from the lower provinces of Nova Scotia and New Brunswick to British Columbia.

The purpose of the Metropolitan service is to prolong the lives of the policy holders, which combines good private business policy with good public health work.

The efforts of the Company have been threefold: first, the improvement of individual health through educational leaflets and pamphlets distributed by the agent; second, the improvement of general health conditions through co-operation with health officers in clean-up, fly-swatting and other campaigns, through assisting them in enforcing housing ordinances, and by the enlistment of public support for general and special health movements.

The aim of this service is to care for those persons who are sufficiently ill to require the care of a physician, and to restore them to health and working efficiency. Nurses are forbidden to care for policy-holders unless a physician is in attendance, and the amount of nursing care required in any individual case rests with the physician.

As the service is a visiting one, nurses do not remain permanently in the home of the sick. The nurse calls as soon as possible after the case is reported to her, either by physician, policy-holder or agent, and remains in the home long enough to carry out the treatment prescribed by the physician. The length of the visits vary from fifteen minutes to one hour according to the amount of treatment required.

Although the emphasis is placed on the acute case, the patients suffering from chronic ailments are not ignored. The Company sanctions occasional visits for instruction of the family in proper methods of caring for the patient so afflicted, in order that the family may then assume the responsibility of care.

As the care of tuberculosis is a special field of nursing, the Company cares for policy-holders suffering from this disease only when other care is not obtainable. Nurses are urged to assist patients in securing admission into a sanatorium. If this cannot be done, and if tuberculosis nurses are not available, the Company authorizes occasional visits for the purpose of observation, instruction and supervision.

A maternity service is extended to all industrial

policy-holders whose policies have been in force nine months. Pre-natal and post-natal services are given. Acute infections, following child birth, are nursed as any other acute case of illness. In 1918, the Company cared for 40,000 mothers and babies. It isn't how many babies are born,—it is how many babies are saved.

Over 1,500,000 visits to the families of Industrial Policy-holders were made last year.

In addition to the education given to sick policy-holders by the visiting nurse, the Company seeks to educate in matters of health by means of leaflets and pamphlets. These are written in very simple language and are published in various foreign languages as well as in English and 177,000,000 copies of leaflets dealing with such subjects as "Fake Consumption Cures," "A War Upon Consumption," "Directions for Living and Sleeping in the Open Air," "The Health of the Worker," "Health Campaign Circular," etc., have been distributed. In addition the Company has circulated city clean-up leaflets to the number of 1,250,000 urging policy-holders to co-operate with their health officers in clean-up campaigns. A publication "All About Milk" by Dr. Milton J. Rosenau, Professor of Preventive Medicine and Hygiene at Harvard University, has done much to improve the milk supply of cities and has emphasized to policy-holders the value of pasteurization. Other publications are "Teeth, Tonsils and Adenoids," "How to Live Long" and "The Child." These welfare pamphlets have been widely distributed, not only to policy-holders, but Boards of Health, Schools, Reading Rooms, Day Camps, etc.

Like all progressive institutions today the Metropolitan knows to a mathematical certainty that the improvement of living and working conditions increases the efficiency and longevity of the workers and is in hearty co-operation with industrial physicians and surgeons, manufacturers, heads of mercantile establishments and health officers in improving living conditions in their respective communities.

The professional requirements for Metropolitan nurses comply with the standards of the National Organization for Public Health nursing. More and more each year the necessity of nurses obtaining special training in public health nursing in order to properly fit themselves to enter this important field of work is emphasized. In discharge of their actual duties the nurses instruct policy-holders in the principles of food, etc., and when it is necessary to do so they arrange for the proper transfer of patients to other agencies, such as hospitals, convalescent houses, sanitariums, etc.

The Metropolitan work is thoroughly supervised at the Home Office and in the field by graduate nurses. Field Supervisors spend eleven months of the year in traveling through the country visiting the nursing services. These Field Supervisors are women of wide experience both in nursing and public health fields and are graduate nurses who have held important administrative and executive positions and are doing much to instruct not only nurses but also the field force in the broader aspects of public health work.

How valuable this independent enterprise and

service of one Company is to the public health may be measured by the fact that it is at the disposal of one-tenth of the population of the United States.

CONCERNING REPRINTS AND OUR PUBLISHERS

Certain authors whose papers have appeared in *The Journal* have been guilty of the gross discourtesy and business error of refusing to accept reprints of their articles which they had ordered over their own signatures and which were sent them by the publishers of *The Journal* by express, C. O. D. Several remarks are pertinent in this connection. In the first place, the present financial status of the State Medical Society does not allow the free supply of reprints by *The Journal*. It is questionable if such a practice would be desirable in any case in a Journal representing the entire medical profession of the state. Difference in length of articles, illustrated matter, etc., make it obviously unjust that every author should receive reprints at the expense of the society even if this were financially possible. We are getting and publishing good papers. It is a benefit to the author to have his article appear in the *JOURNAL*. This was illustrated by a recent letter from Boston stating that the writer was amazed at the wide distribution of inquiries he had received after publication of a certain article in the *CALIFORNIA STATE JOURNAL OF MEDICINE*. It is an obligation on writers to present material of sufficient merit to be published. There is no obligation on the *JOURNAL* to recompense authors by reprints or otherwise.

Furthermore, authors receive a printed order detailing the cost of reprints in various quantities. These prices are remarkably low and cover actual expense only. In many cases they do not cover actual cost of time and labor involved. Reprints are sent C. O. D. by express at the written request and order of the author. If he refuses to accept delivery of them, he breaks his own word and offers a gross discourtesy and definite monetary loss to the publishers.

Finally a word about these same publishers. Acknowledgment was intended before this of their unflinching courtesy, promptness, efficiency and invaluable professional advice and counsel, which have never failed in their management of *The Journal* printing and which have been an asset to the State Medical Society all too lightly considered. The James H. Barry Company of San Francisco have won the deserved esteem of the editorial and office staff of the State Society. As publishers, they have taken a personal and highly skilled interest in *The Journal* and no contribution has been more important than theirs in improving and maintaining *The Journal* at its present stage of scientific development. Their prices have been surprisingly low and have evidenced their interest in more than a mere automatic printing of material sent to them. We thank them in behalf of the editorial office, the State Society office and the State Society, and we

apologize for the discourtesy of a few men who have failed to realize the obligation that the State Medical Society owes to the James H. Barry Company, and the very obvious benefits that they themselves so lightly hold.

SPLITTING INSURANCE FEES

A bargain requires two parties. From time to time we have attacked both of them in these columns. The effect has probably been slight. But continuous hammering may bring some improvement and in any case, we intend to keep at it. Perhaps after a time a consciousness of right, of ethical values, will be aroused, which will ally itself with a better understanding of the real business interests of the doctor. Such a consciousness is sadly needed in the medical profession today. It is the same kind of consciousness as that which has reached its climax in the international affairs of men, a recognition of the rights and aspirations of all the races of men. Each doctor must needs remember that he is not alone, not a little tin god on wheels, with no ethical or social relationships. He is a cog in the great and complex machine of modern society, engaged in weaving the fabric of a new and righteous civilization. Within that, he has a close and vital relationship to his own colleagues, a responsibility to them and a just demand on them. He lives not to himself alone, he of all men and of all professions.

Perhaps, some day, there will be no secret splitting of fees. Some day, perhaps, no physician can be found so "amenable to reason"—save the name!—as to be willing to rebate a fee schedule and also to be willing to round up equally conscienceless associates who will follow his example, becoming tools of the insurance carriers, and robbing their own professional colleagues of their just dues for professional work.

A strange situation, forsooth, when a medical society is exerting its utmost efforts to develop along just and constructive lines, and certain members of that same society are acting individually to nullify the good works of the society collectively. Let us practice what we preach or quit. If as a society we believe that fee splitting and insurance rebating is an abomination, then let no one remain or be permitted to remain a member, when guilty of such practices. Should such variance between individual action and collective action be termed evolution—or atavism?

What does all this mean? It means this:

Our Committee on Industrial Accident Insurance is now engaged in an exhaustive study of the entire situation, including the question of a fee schedule commensurate with good professional service. They will attempt to develop some relationship with the carriers whereby the latter will appreciate that good service means proper fees. Can the carriers be expected to regard such a relationship or agreement as more than a scrap of paper, if we, the party of the second part in such an agreement, have so little regard for our obligations to our own colleagues as to split

fees and rebate schedules? The carriers are not in the business for the sake of their own health and they will naturally be less influenced by the provable fact that good service must receive adequate pay, than by the fact that the reputable members of the medical profession are standing together and not cutting each others' throats. On such a basis, an appeal of education to the public will surely force carriers to provide good medical service. Which again brings us back to the proposition that the medical profession must really mean what it says, and practice what it means in connection with fee splitting and rebating in insurance work.

SPECIAL ATTENTION OF AUTHORS.

Writers of papers for The Journal should understand distinctly that no change in manuscript as submitted can be made. Galley proofs of each article are sent to the writer for correction of punctuation, spelling and capitalization *only*. Any further change from the original manuscript submitted will not be allowed.

Please bear this in mind, as this rule will be strictly enforced in the future.

Editorial Comment

Don't miss the Tonsil Chorus in this month's advertising section.

For your information read Dr. George H. Richardson's letter, page 299.

Attention of returning Army and Navy doctors is again called to the fact that the law of California requires them to be licensed by the State Board of Medical Examiners before they can practice medicine in this State after discharge. This was explained fully in a letter from the Secretary of the Board which was published on page 88 of the March issue of the JOURNAL.

Read the JOURNAL and then let us know what you think of it. The Immunity Column is for your use. Please do not be afraid of it. Send in your ideas of accident insurance, county societies, and anything else that is of interest to doctors. Also jokes, clippings, and original parodies, etc., are welcome. If you do not like the Journal it is your own fault. Help to make it better. If you do not read the JOURNAL we will find you out by never hearing from you.

Again it is pertinent to remark that every case of typhoid is a sanitary crime and every town where even a small epidemic occurs, has permitted a serious blot on the standard of its intelligence and education. To conceal disease, to avoid the facts, is but to make a bad matter worse. Certain California towns need to consider these facts well. And if they do not consider them, it will be in no small measure due to apathy or ignorance, which in this case is criminal, in the local medical profession.

Special attention is called to the announcement of the California Civil Service Commission which appears in another column, relative to the coming examinations for physicians in the state hospital for the insane. This is an opportunity for young men and men returning from military service who are interested in this line. The examinations are open only to California licentiates and this again is as it should be and affords a still better chance for local doctors.

"Social reform attracts many persons who only seek activity for libidinous tendencies rather than the rendering of service. Many anti-vivisectionists, for example, undoubtedly belong to that group of sadists who delight in cruelty, as shown plainly by their suspicion that every one who does vivisection is really cruel and only indulging themselves in that instinct. They see themselves in others, and then, instead of being able to correct their own tendencies, fight those tendencies which they have thus projected and so relieve themselves from a consciousness of their shortcomings." Thus says Dr. William A. White, surely an authority competent to diagnose even anti-vivisectionists.

The greatest aggregation of California agricultural and horticultural products ever presented will be shown at the Exposition Auditorium, San Francisco, October 4 to 19. The occasion will be the first annual California Industries and Land Show, to be given under the auspices of the Home Industry League of California. The exhibits will be made through the counties, fifteen of which are already lined up for the event. Many others have promised participation. There will be assembled in this great exhibit the rarest and most effective displays of native fruits, cereals, nuts and textiles ever presented in California. The big show is designed to present in the most pleasing and entertaining manner the producing power of California.

Physicians will do well to read carefully Dr. Lengfeld's review of the present situation in regard to narcotics and alcoholic preparations, in the Department of Pharmacy and Chemistry.

Special Article

Presidential Address.*

DR. C. VAN ZWALENBURG, Riverside, Cal.

THE MEDICAL PROFESSION "AFTER THE WAR."

Profoundly grateful for the great honor bestowed upon me and realizing its responsibilities, I approach my task this morning with trepidation.

During the year, much of our energy has been directed into unusual channels and we are proud of the record made by the profession. In addition to the eight hundred or nine hundred enlistments in the Army and Navy Medical Corps, our members have carried the work of the draft boards; have taken active interest in the numerous demands for funds for war work—for the sale of bonds, for the free services to soldiers and sailors, to say nothing of the added private work on account of so many conferees being away in the service. On top of all these activities came the appalling avalanche of influenza victims.

Truly the year has been full—and it would have been no wonder if the normal work of the Society had suffered materially. However, we think the record is not bad. At the close of the greatest war of all history, we find ourselves facing a new era. The brotherhood of man has acquired a new meaning. Community interest has taken the place of individual self-interest.

Will man be no longer selfish? Yes. Selfishness is the first law of life. We can have no life without it. But the selfishness for the individual is being transformed into selfishness for the community. Long ago man learned that for selfish self-protection he could fight better in gangs than alone. Individualism no longer controls. Things are being done in groups, communities, unions.

My talk will concern chiefly the business side of medicine, which is very much neglected. Our merchants are keen these days on teaching salesmanship. They pay men to teach their clerks salesmanship. I think it would help if the medical men would get together and have some one talk to them on salesmanship. We need to impress our advice upon our patients, need to make ourselves indispensable, through the same sort of psychology that the salesman uses to sell his goods. We need to sell ourselves to our patients. Medical men are proverbially poor business men. The charitable and sympathetic side of medicine is so thoroughly a part of our profession that, for fear of being charged with commercialism, medical men avoid the business side. Would it not be wise to have a few lectures on salesmanship in our medical colleges? When I speak of business, I do not mean dollars and cents exactly. Commercialism in medicine is degrading and has no place in legitimate practice. I mean system, organization, punctuality, management, efficiency. Business system is necessary to success. No one can be a real success without it. How often we see the poorly equipped man, from the scientific, professional side, outstrip his fellows just because he has the business instinct

or the business training. Dr. G. Shearman Peterkin, of Seattle, has given us a wonderful example of business system in his "Efficiency in Medical Practice." Where does the Profession in California stand today?

I believe that our Profession in California is in a very comfortable position today, perhaps a little better than it ever has been before anywhere. I am a firm believer in the idea that the world is constantly growing better, and although we shall always have our difficulties, I am very optimistic for the future.

The demands upon the doctor for greater efficiency and better equipment are well known to you. His years of study have been increased. The amount of the investment by the time a man graduates is double what it was twenty years ago, and I say this without taking account of the change in the level of prices which has been so sharp during the last few years.

In California, there is one physician to 394 of population as against one to 691 for the entire United States, one to 1500 in England and Wales, and one to 2000 in Germany. (According to the census of 1910.) Our medical congestion is being rapidly increased by many men coming here direct from their army experience. In addition, we have innumerable varieties of quacks, who all add to the competition for bread and butter. Verily our business interest demands that we stand together.

There are now returning nearly 40,000 men who have seen more or less of Army life. What new ideas do they carry? What are they going to do? A good many of them are restless; all of them would like to improve the position which they formerly held; many of them are changing locations; hundreds will come to California before they settle down. They all carry, more or less, the gospel of organization, co-operation and specialization.

The organization of the Army Medical Corps, with its demand for records and detailed care of its patients, should be a great benefit to the men who have had the training. The efficiency of the Army Medical Department is too well known to you to need details. No army ever made the record for health that we did. The death rate fell to 4.5 per 1000 as compared with 33 per 1000 in 1830, when the Department was fully organized.

Specialization was a compelling feature of the Army and must have taken root in many a young man who, without that experience, would not have attempted it. The knowledge of sanitation which these 40,000 men bring home with them must bear fruit in better preventive measures and better general health conditions. In addition, four million men who were under arms bring back with them more or less knowledge and training in sanitation and preventive measures. Their leavening of the loaf is a force we should make use of. Verily, we have reason to emphasize the remark of Gladstone: "In the health of the people lies the wealth of the Nation."

What then can we do as a group of selfish altruists? Shall we become ultra-revolutionists and

* Address of retiring president, California State Medical Society, April 16, 1919, Santa Barbara.

advocate state medicine? Shall we become Bolshevik, meaning, as I heard it interpreted by a scholar, "those who demand the more of the most"?

Not yet awhile! Thanks to the League for the Conservation of Public Health, we are still a long way from the desperation of our English brother physicians. I wish I had time to tell you about them; their condition is so serious that they are turning to state medicine as a refuge, hoping salaries, even full salaries, will be better than the pittance they get now by the panel system of social health insurance. When a medical man gets down to Fifty Pounds a year on panels, most any change must look good to him. You will find the beauties of state medicine expounded by Major General Sir Bertrand Dawson, Cavendish Lecture, Benj. Moore, President State Medicine Service Association, and Major Gordon Dill in the *Lancet* for July, 1918, and by Wm. A. Brand in the *Practitioner* for November, 1918.

No—the care of the sick is such an intensely personal service that individual attention is still the key-note. A patient is not a chattel and can not be tagged with impunity and distributed alphabetically. Still, community practice and specialization have their attractions and it should be possible for us to employ some of these desirable features through our own initiative, and incidentally help to forestall the pressure for state medicine.

Again bread and butter—business—steps in. One of our first thoughts is "What must we do with the individual who is unable to pay for his medical services?" The care of patients who are unwilling or unable to pay had always been a large part of the physician's duty. The need to care for those who are unable to compensate the physician is one of the fundamental conditions of the practice of medicine. A reasonable amount of this sort of service is good for the doctor; it demonstrates his sympathy and brotherhood, and should be continued. When, however, we study the proportion of the doctor's time which is given to charity, work for the State, public health and the public good, there is no doubt that he is being imposed upon.

I find no reliable figures on the amount of charity work done by medical men, only estimates—25 per cent—one-third of his efforts. I am inclined to place it higher, especially during the past war years. In many cases it rises to 50 per cent. We know that it is far too high.

For instance, we were told the other day that the Los Angeles County Hospital had taken care of 14,000 patients during the past year; something over one hundred medical men rendered their services gratuitously. On a reasonable basis of fees (assuming that in private practice each patient would have paid \$25 during the term of his illness), you will see that the services rendered by these men amounted to \$350,000, or \$3500 each for the year. Is it right that these services should be rendered gratis when all other employees of the institution are paid? True, the hospital rendered some remuneration to the doctor in experience and

training for his life work; but consider the enormous amount of expense that has already gone into his training. Is the apprentice to tradesman more entitled to compensation than the apprentice doctor? I believe that the medical profession should use every effort to increase the compensation for services rendered to the public.

Paid health officers are becoming more and more the rule, and the State is paying something in its efforts to prevent disease. The Public Health Service is being more or less compensated, but not adequately. The medical profession should use all its efforts whenever possible to secure better compensation for this kind of work. Right here, I wish to recommend that this Society memorialize its senators and representatives to stand for a competent appropriation for the United States Public Health Service. The latest advices are that the appropriation for the Service has been pared down to a fraction of what Surgeon General Blue called for. This is a step in the wrong direction, and the medical profession should go out of its way to urge a larger appropriation. What is more important than national effort to improve the health of its people?

Imitating the organization in the Army, let us improve our team work in taking care of our patients. Coming up here, my train stopped at a station in a town of about 500 inhabitants and my eye caught the sign "Attorneys at Law"—there were three names on that sign. I thought, what an example for medical men. Why cannot doctors carry on partnerships as well as lawyers? Suppose three medical men lived in that town, as no doubt they do, how much comfort could be added to their work if they joined as partners, even though they did not specialize. They could relieve one another from time to time, and one off duty could feel that the others were looking after his interests. What an overpowering burden is the feeling of the medical man that he is everlastingly on duty! To my mind, that is one of our greatest hardships. The doctor sees all his friends off duty when the day is done, but he is on duty day and night as long as he is in the vicinity of his practice. Again, how much more comfort these three men would have if they divided their work along certain specialty lines. Of course, in a community of that size they would all be general practitioners, and to my mind that is one of the most attractive of specialties. In the future, I am sure that the general practitioner will be emphasized as a specialist, as a man who knows general medicine thoroughly and scientifically. He becomes the bosom friend of his patient. His general adviser. The most level-headed man in the community, always ready to do what he can and ready to pass that patient on to the specialist when occasion demands. But in addition to being general practitioners, each of these men would select one line of endeavor; for instance, one internal medicine, another surgery, and a third obstetrics; what comfort would come to them from feeling that they were specially prepared to speak along a certain line.

The enormity of the field of knowledge involved in the practice of medicine today is so thoroughly

felt by layman as well as physician, that it needs no argument to demonstrate that it is absolutely impossible for any one man to cover the field entirely; and what is more disquieting than a sense of insufficient information to properly care for our patients?

To my mind, there are two fundamental difficulties in the way of partnerships in medicine. If these can be removed or minimized, we can have more partnerships and groups.

First, the fact that the medical man's reputation is his chief and practically only asset. The amount of money invested in his equipment is negligible, but if he is deprived of his reputation, he has lost tremendously. Any failure to hold his patient acts as a reflection upon his reputation and he immediately resents it. The physician's work is intensely personal and anything affecting this relation is immediately construed as an attack upon this asset. I think this is the root of those jealousies which have always been a disrupting influence.

Second, the difficulty of an equitable division of the income. Many happy and successful partnerships have been carried out by an even division of the net returns. Where men do almost the same character and amount of work, this is very satisfactory; but manifestly this is not often the case. Many schemes have been suggested to overcome this difficulty in partnerships, whether they be partnerships of two or of a larger group.

I am going to have the temerity to suggest a plan which in more or less similar detail has worked out satisfactorily, and which I think would work out satisfactorily in the majority of cases because it is so flexible and can be adjusted to almost any condition. I feel that if an equitable division of the income can be secured, we shall see many more partnerships and groups working together. As a matter of fact, there are a very considerable number of very satisfactory partnerships in California today. My suggestion is a percentage division established once every six months, based upon the work done during the preceding six months, or three or twelve. This percentage should be based upon a number of factors:

1st. The amount of work done as charged upon the books.

2nd. The amount of cash actually taken in through each man's practice during the preceding six months.

3rd. The actual amount of physical labor expended, that is, the number of calls made and the number of patients seen.

4th. A percentage of scaling down the surgeon's fee for the benefit of the group.

5th. An allowance for difference of investment, good will, etc.

Many other factors will occur to you and may be added ad libitum.

With all these factors worked out in percentages, it is a simple matter to meet every three, six months or once a year, with open minds and broad views and a hearty appreciation of the other fellow's position, to arbitrarily make further slight adjustments in the percentages which each should

receive. Of course, absolute honesty of purpose is necessary. As Dr. Victor Vaughan says: "An essential in medicine is integrity." This financial feature has been the rock which has wrecked the majority of groups and it should be overcome.

I like to use the term "community patient." Let the patient belong to the community of physicians. I think one of the most degrading things in medicine is the sense of proprietorship which many medical men try to exercise over their patients. No one has a lien on any patient. The paramount interests are all subsidiary to the good of the patient, and if it is to his interest that one better qualified than I should take care of him, it is my duty—and I consider it my privilege—to pass him on to the next man. My advice is (especially to the younger man)—"Learn to let go of your patient. You will have returned to you two for one if you do it in the right way. Let go!"

I am convinced that one of the greatest mistakes of my professional life has been my unwillingness to let go of my patient. Had I specialized earlier and more definitely, I should have been much better off. I kept myself too busy trying to take care of too many patients and too many kinds of diseases.

No matter whether your team is on a charity organization or a partnership plan, or whether you are working independently, I say let go when you are busy or when someone else can do better by your patient.

More consultations seem to me most desirable. In our own county organization, I have made a plea for a reduction in the consultation fee, with the idea that consultations should be encouraged. In many cases, the question of adding ten dollars to the burden of the patient is the deciding factor against a consultation. By minimizing the fee, more consultations would be held.

Group medicine is often most successfully carried on without an actual financial partnership. All types of groups should be encouraged. The community care of patients if properly organized is most satisfactory to all concerned. The hospital lends itself to this plan, and many groups may be built up with the hospital as a center, be this a hospital proper, a clinic, or that newer development known as a pay clinic, where the patient pays a minimum to cover actual expenses. The Diagnostic Group at St. Luke's Hospital in San Francisco, is another plan which other communities might well follow.

It has been well said that only the poor and the very rich can have expert medical attention. The poor get it through our thoroughly organized staff so well established in our charity hospitals. The rich get it by paying for an army of specialists. The middle class suffers because it is above charity and cannot pay for expert attention by a number of men.

Organization, co-operation and specialization—these are the three prominent lessons which this war should bring home to us. The best way to carry them out is to adopt better business methods, better organization, more consultations, more com-

munity practice, more group practice, hospital standardization, and higher scientific attainments.

In conclusion, then, let us push firmly along these lines:

1. Better business methods.
2. Better organization in our societies.
3. League for Conservation of Public Health.
4. Hospital standardization.
5. Better salaries for public health officers.
6. More specialization.
7. More consultations.
8. More group medicine.
9. More publicity.
10. More science.
11. More records.
12. More brotherhood.

THE PHYSICIAN AND INDUSTRY.

By G. G. MOSELEY, M. D., San Francisco.

The doctor has become an important factor in modern industry and the application of his knowledge to industrial conditions has developed a new specialty in medicine. Industry is responsible for its damage to human machinery and the proper treatment of injuries arising out of industrial accidents is a question which should receive the serious attention of the medical profession. It should be demonstrated to both the employer and employe that the organized profession stands for the very highest class of service and by men who are capable of doing good surgery.

The proper setting of a fracture is an important matter to the working man. If not well treated he may be a cripple for life. If an infection of the hand is neglected it usually results in a permanently stiff wrist or fingers, reducing the man's earning power by almost one-half. The large number of permanent injuries following fractures and especially injuries to the hand, clearly shows that there is much room for improvement in the treatment of these cases. Of the 109,998 industrial accidents occurring in the state in 1917, there were approximately 2,000 of them followed by permanent disability, and while it would have been impossible to prevent many of these, yet there is no doubt that some of them could have been prevented and much better results obtained in many others.

The experience of the men who have been in the army will be very helpful in handling these cases in the future, not only in the matter of the immediate care of the injuries, but also in getting the injured man back to work, which is an important part of the treatment. If allowed to remain idle too long some of these cases develop a peculiar mental attitude and a nervous condition which makes it very difficult to get them to return to their former occupations and frequently results in the development of traumatic neurosis.

Better medical service for those injured in industry is the problem that must be met by the medical profession and worked out on the same lines that have brought about higher standards in the medical schools and hospitals. The im-

provement in the treatment of these cases is a matter of education and by this is not meant trying to make surgeons out of general practitioners, but by bringing the man in general practice to the point where he will not attempt to treat serious cases for the cure of which he is not fitted by training or experience. He should be made to understand that his bad results will be condemned by both the profession and the public.

The standard of medical service demanded by the public is higher now than ever before and this is especially true in the field of industrial medicine, and it is here that the organized medical profession can be of the greatest help in weeding out the incompetent doctor.

In the treatment of the majority of these cases, either the employer or the insurance carrier, within reasonable limits, has the selection of the physician, and the interest of both the employer and the injured man demands good service, and if the profession does not stand for a higher class of service in the future than has been rendered in these cases in the past, this is a question which will be solved for them by the laity. It is not reasonable to expect the employer, who has to pay not only the physician, but also for the time lost while the injured man is disabled, to be satisfied with poor service. The time has come for the profession to do constructive work along these lines and to show that they have some unselfish interest in these cases.

There are many medical problems connected with industry to be solved by the doctor. The proper treatment of the injured, accident prevention, industrial fatigue, the effect of industry on women workers, physical examinations for the proper placement of workers, are but a few of the questions that must be largely worked out by the medical men. Upon the work done in the solving of these and like questions depends the future usefulness of the medical profession to industry.

Original Articles

PROSTITUTION IN ITS RELATION TO PUBLIC HEALTH IN SAN FRANCISCO

SAN FRANCISCO DEPARTMENT OF HEALTH,
per WILLIAM C. HASSLER, M. D., Health Officer.

During the month of August, 1917, the San Francisco Board of Health, at the request of the War Department of the United States Government, and in accordance with a plan outlined by the Army and Navy through the Commission on Training Camp Activities, established a clinic at the City Prison for the purpose of examining for venereal disease all persons arrested by the Morals Squad as vagrants or on the charge of prostitution.

This squad was organized by the Chief of Police to cooperate with the Board of Health, following a conference had in San Francisco with the mayors, supervisors, district attorneys, sheriffs and State and county boards of health

of all the Bay counties, Mayor James Rolph presiding.

Three days after this meeting at which the policy was outlined and San Francisco's pledge given to support the program the campaign began and has continued to date with fearless vigor to "Smash the Line" in a manner that has won the approval of the United States Government.

During the past year and a half both the Department of Health and the police have been attacked and charged with attempting to enforce not only a freak theory, but a pernicious experiment that would not suppress prostitution, but which would scatter it to the residence districts.

These objectors offered no remedy, other than that of establishing the segregated district, etc., etc.

The following extract from a letter sent by the Secretary of War to the mayors of the cities and the sheriffs of the counties in the neighborhood of all military training camps August 10, 1917, was our answer:

"The War Department will not tolerate the existence of any restricted district within an effective radius of the camp. Experience has proved that such districts in the vicinity of army camps no matter how conducted, are inevitably attended by unhappy consequence. The only practical policy which presents itself in relation to the problem is the policy of absolute repression, and I am confident that in taking this course the War Department has placed itself in line with the best thought and practice which modern experience has developed. This policy involves, of course, constant vigilance on the part of the police, not only in eliminating regular houses of prostitution, but in checking the more or less clandestine class, that walks the streets and is apt to frequent lodging houses and hotels.

"(Signed) Newton D. Baker."

All women, as well as the men who were apprehended with them, who were found suffering from venereal disease were quarantined and sent to the San Francisco Hospital.

At times when the hospital ward was overcrowded, those suffering with latent syphilis, or chronic lesions, and who could afford private treatment by reputable physicians, were discharged on parole and required to report to the clinic once a week, but if caught a second time they were sent to the county jail for treatment.

Some escaped through technicalities of the law in the early stages of the campaign, but these generally left the city.

From August, 1917, to January, 1919, a period of approximately 16 months, 1580 women and 170 men were examined. 1141 or 72% of the women and 32 or 18% of the men were found infected with either Syphilis or Gonorrhoea or both.

The following table No. 1 graphically shows the work done at the Jail clinic:

TABLE No. 1.

Tabulation of Examinations Made at the Venereal Disease Clinic, August, 1917, to January, 1919.
County Jail No. 1.

Number of Times Examined.	Individuals Examined.	Number of Examinations.
Once	1262	1580
Twice	198	396
Three Times	58	174
Four Times	29	116
Five Times	11	55
Six Times	10	60
Seven Times	1	7
Eight Times	3	24
Nine Times	4	36
Ten Times	3	30
Twelve Times	1	12
Total	1580	2490

Women Arrested Under Section 13, Act of Congress (Federal) and Examined.....398

Findings of Examinations as Follows:

Diseases (Women)	Found Infected	Sent to Hospital
Gonorrhoea	463	405
Syphilis	678	58
Total Syphilis and Gonorrhoea	1141	463

Percentage of Women Examined and Found Infected:

With Syphilis43%
With Gonorrhoea29%

With Syphilis or Gonorrhoea or Both.....72%

Data regarding men examined (arrested in company with prostitutes or allied charges):

Number of men examined.....170
Found infected with Syphilis..... 23
Found infected with Gonorrhoea..... 9
Percentage of men found to be infected.....18%

The following table No. 2 is also of interest showing as it does the admissions by months to the San Francisco Hospital:

Aug. (1917)	3 cases	May (1918)	30 cases
Sept. "	26 cases	June "	24 cases
Oct. "	36 cases	July "	28 cases
Nov. "	21 cases	Aug. "	12 cases
Dec. "	28 cases	Sept. "	22 cases
Jan. (1918)	25 cases	Oct. "	37 cases
Feb. "	19 cases	Nov. "	33 cases
March "	27 cases	Dec. "	33 cases
April "	26 cases	Total	430 cases

In addition to above, 33 cases were sent to the Isolation Hospital.

The average number of days patients remained in the hospital was 32.2 days.

It is noted that in spite of an active campaign by the morals squad during August in which 31 arrests were made, and 15 of the women examined were found ill with either Gonorrhoea or Syphilis, only three were sent to the hospital. This was

due to the subterfuges and technicalities of lawyers, whose sharp practice was short lived; by exercising the power of quarantine given to the State Board of Health by the Public Health Act of the State, the State Board in turn passed a regulation making Venereal Disease reportable and quarantinable, delegated the local health officer as the deputy with full power to quarantine all persons found suffering from Venereal disease.

This had a two-fold effect—first, it prevented release on bail and brought the infected to the hospital for treatment, and, secondly, it reduced the number of new infections.

The effect of law and enforcement is evident at a glance by the following table:

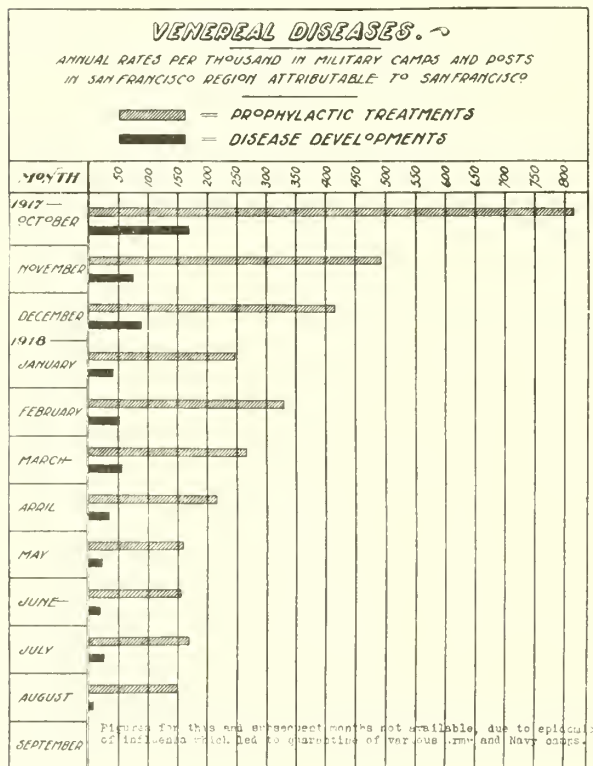


TABLE No. 3.

which shows plainly that isolation and treatment of the acute case as well as the chronic carrier is essential to the successful conduct of controlling Venereal Disease in a community.

When the incidence began to increase in February it was brought to the attention of the judges of our Police Courts and they responded and at once a decrease in the rate was apparent.

With the law and enforcement, the prostitute menace is reduced by such numbers that its effect is also felt as a factor in the reduction of cases of disease, as is demonstrated by the reducing number of prophylactic treatments reported by the Army. What is true of an Army camp must hold in civil life.

The following table shows a list of the major and minor operative interferences found necessary on prostitutes held in quarantine from August 15, 1917, to December 31, 1918:

MAJOR CASES.

Hysterectomy	4 cases
Salpingectomy	15 "
Oophorectomy	10 "
Appendectomy	6 "
Uterine Suspension	2 "
Exploratory Laparotomy	1 "
(Inoperable Sarcoma of Right Ovary)	
Ventral Hernioplasty	1 "
Femoral Hernioplasty	1 "
Single Cataract	1 "

MINOR CASES.

Excision of Bartholin Glands	45 cases
Cauterization of Cervix	31 "
Curettage	14 "
Perioneohaphy	5 "
Trachelorrhaphy	8 "
Hemorrhoidectomy	2 "
Syringotomy	1 "
Ischio rectal abscess	1 "
Interposition	1 "
Cystoscopy	1 "
Tonsillectomy	10 "
Septum Operation	2 "

Results of a Psychological Study.

A psychological study of 100 of the San Francisco prostitutes held in quarantine was made by Dr. Olga Bridgman, Medical Psychologist of the San Francisco Board of Health.

Very little careful work has been done with regard to the problem presented by the prostitute, and conjectures as to the intelligence of these girls and women have been numerous. The general conclusion, which has been accepted, is that approximately 50 per cent. of all prostitutes are feeble-minded and that, of those not actually feeble-minded, few are really endowed with good minds. On the other hand it has been pointed out by some of the more intelligent prostitutes themselves, that this conclusion is absurd, since the really clever prostitute seldom falls into the hands of the police. She lives her life quietly without attracting attention to the manner of gaining an income, and may occasionally be accepted in the better classes of society. This type of prostitute, needless to say, is almost never found in the courts, and is only rarely seen by social workers, when in her later years she finds herself broken down in mind and body, no longer able to obtain the income necessary to satisfy her luxurious tastes and quite unable to force herself to do the unskilled work which is her only resource.

The prostitutes considered in this report are all cases appearing in the courts; women whose very appearance in many instances advertises their manner of living and who are, for the most part, vulgar and profane, presenting no attractions whatever to the thoughtful observer.

Their ages range from 17 to 41 as is shown in Table No. 5. The majority were under 23 years of age, and while some were drug addicts as a rule they were strong and vigorous, while a large number of those over 22 were wrecks giving evidence of mental and physical excesses.

Of the group, 21 were born in San Francisco,

71 came from other parts of the State and 8 were foreign born, 3 were negroes and the rest all of the white race, there being no Mexicans or Indians or other races in the group.

TABLE No. 5.

Ages of Prostitutes Held for Treatment.

Age	Number	Age	Number
17 years	9	28 years	3
18 years	14	29 years	2
19 years	12	30 years	1
20 years	8	31 years	4
21 years	9	32 years	1
22 years	14	33 years	1
23 years	3	34 years	2
24 years	3	37 years	2
25 years	2	38 years	1
26 years	1	40 years	2
27 years	5	41 years	1
Total		100	

TABLE No. 2.

Birthplace of Prostitutes.

American-Born	92
San Francisco	21
Rest of California	43
Arkansas	1
Colorado	2
Georgia	2
Idaho	1
Illinois	1
Indiana	1
Louisiana	1
Michigan	2
Minnesota	1
Missouri	1
New York	5
Ohio	1
Oklahoma	1
Oregon	1
Pennsylvania	2
Tennessee	1
Washington	1
Wisconsin	1
Montana	2
Foreign-Born	8
Belgium	1
Canada	1
France	2
Germany	2
Hungary	1
Spain	1
Total Number	100

Of the one hundred women, sixty-one were married once, twice or three times, and thirty-nine were unmarried. Early marriage seems to be fairly general; three were married at 13 years and only eight after twenty years of age. (See table following.) It has been advanced that prostitution was caused to an extent by late marriages. So far as these women are concerned, this is obviously untrue. Many of the group stated that early, unhappy marriages had been directly responsible for their becoming prostitutes.

Table No. 3.

MARITAL STATUS OF PROSTITUTES.

Married	61
Unmarried	39
Total	100

AGES WHEN FIRST MARRIED.

13 years	3
14 years	2
15 years	4
16 years	17
17 years	9
18 years	8
19 years	5
20 years	5
21 years	4
25 years	1
27 years	1
30 years	1
33 years	1

Total number 61

The education of these women is limited. None has gone beyond the second year in high school, and over half have never finished the seventh grade. Most of them were slow in school and were of the type which is quite incapable of completing the ordinary grammar school work. Only twenty-four of the group of one hundred finished grammar school.

Table No. 4.

EDUCATION OF PROSTITUTES.

Never in school	1
First Grade	1
Third Grade	4
Fourth Grade	7
Fifth Grade	11
Sixth Grade	7
Seventh Grade	26
Eighth Grade	15
Graduated	13
First year in High School	7
Second year in High School	4
? as to grade	4

Total 100

GRADES AND AGES ON LEAVING SCHOOL.

First Grade at 12 years old	1
Third Grade at 12 years old	1
Third Grade at 13 years old	2
Third Grade at 15 years old	1
Fourth Grade at 13 years old	1
Fourth Grade at 14 years old	3
Fourth Grade at 15 years old	2
Fourth Grade at 16 years	1
Fifth Grade at 11 years	1
Fifth Grade at 12 years	2
Fifth Grade at 13 years	3
Fifth Grade at 14 years	1
Fifth Grade at 15 years	3
Fifth Grade at 18 years	1
Sixth Grade at 13 years	2
Sixth Grade at 14 years	1
Sixth Grade at 16 years	3

Sixth Grade at 19 years.....	1
Seventh Grade at 12 years.....	1
Seventh Grade at 14 years.....	7
Seventh Grade at 15 years.....	8
Seventh Grade at 16 years.....	6
Seventh Grade at 17 years.....	4
Eighth Grade at 13 years.....	2
Eighth Grade at 14 years.....	2
Eighth Grade at 15 years.....	5
Eighth Grade at 16 years.....	3
Eighth Grade at 17 years.....	2
Eighth Grade at 18 years.....	1

GRADUATES FROM GRAMMAR SCHOOL.

At 12 years.....	1
At 14 years.....	4
At 15 years.....	3
At 16 years.....	4
At 17 years.....	1

IN HIGH SCHOOL.

First year at 14.....	1
First year at 15.....	1
First year at 16.....	2
First year at 17.....	2
First year at 18.....	1
Second year at 15.....	3
Second year at 19.....	1

All of these women were given a fairly extensive mental examination and the following clinical groups were found: Twenty-four were regarded as definitely feeble-minded, so defective that they could never be expected to look out for their own affairs intelligently and just as deficient as large numbers of girls who are already inmates of the State home for the feeble-minded. The necessary care for these is obvious. Only by continued institutional care can they be given such supervision as will protect society. Another woman was both insane and feeble-minded and had formerly been an inmate of one of the State hospitals for the insane. Still another was epileptic and feeble-minded and should certainly not be at large in the community.

Thirty-nine of the prostitutes belong in the doubtful or border-line group. They show a certain amount of mental defect, but under favorable conditions they might become self-supporting. They need careful supervision and training for a long time. Some will break down still further, so far as mental capacity is concerned, and they may later have to go to the Home for the Feeble-minded, but in each case an effort should be made to help the women to a useful life. To do this an industrial farm for women is absolutely necessary. In dealing with this doubtful group, we have no right to jump to conclusions as to future possibilities. Only after long continued study and observation should we judge this type of individual as fit or unfit.

Twenty-five of these women are merely dullards, with considerable shrewdness about practical matters, but untrained and lacking ambition or interest. For them, too, an industrial farm is necessary and the chances for the future are better than with the less intelligent girls.

Finally comes the group of intelligent, capable women, with quick, alert minds, but with no

moral ideals and no scruples against a life of vice. These girls, capable intellectually of leading a normal life, but as a rule, selfish and unemotional, will be very hard to help. However, prolonged and patient effort has never been made systematically and until it is done, one has no right to anticipate failure.

Table No. 5.

CLINICAL DIAGNOSIS FROM INTELLIGENCE STAND-POINT.

Simple feeble-mindedness.....	24
Border-line or doubtful cases.....	39
Dull cases.....	25
Good adult intelligence.....	8
Insane and feeble-minded.....	1
Epileptic and feeble-minded.....	1
Dullard with drug addiction.....	2

Total100

Table No. 6.

MENTAL AGES OF PROSTITUTES.

7 years.....	1
8 years.....	1
9 years.....	8
10 years.....	16
11 years.....	28
12 years.....	15
15 years.....	25
Adult intelligence.....	5
? Drug addictions.....	1

Total100

CONCLUSIONS.

1. Suppression of prostitution in San Francisco has proven practical and successful and justifies a continuation of the same law and enforcement measures during normal times that were started as a war measure.

2. That a venereal disease hospital should be maintained by the city as a public health measure supplemented by clinics where proper treatment without cost can be administered.

3. That segregation should be made at the hospital which will tend to separate the beginner who is normal from the defective and hardened case.

4. That the State should provide a place where the sub-normal and defective can be sent and cared for after curing of the acute condition for which they were quarantined.

5. An industrial farm should be maintained by the State where the normal and border-line case can be sent for rehabilitation physically and where mental and vocational training may be had to fit them into the scheme of life which is possible only after a period of absence from the surroundings which enslaved them.

6. Without such co-ordinated and correlated connections the present system offers us no hope for the greater percentage of the women as it cures them for the time being of their acute troubles and throws them back into the mill to be ground over again.

SAN FRANCISCO BOARD OF HEALTH,
Per Wm. C. Hassler, M. D.,
Health Officer.

A PRELIMINARY REPORT UPON THE TREATMENT OF HAY FEVER BY ALCOHOLIC INJECTION.*

By D. H. TROWBRIDGE, M. D., Fresno, Cal.

Hay fever has been the bugbear of physicians for years. In the past, when a patient suffering from hay fever came to us for treatment, we felt helpless and said there was little or no cure. It is true that in many cases we found deformities of the nose such as deflected septums, enlarged turbinates, septal spurs, etc., which seemed to contribute to the disease, but unfortunately the correction of these deformities, as a rule, did not relieve the distressing symptoms which arose from the hay fever itself. I think a great deal of injurious operative procedure has been carried out in these cases, especially the removal of the turbinate bodies and that much harm was done by these operations, and after all it was very rare indeed when this operative work produced any beneficial results on the hay fever symptoms.

Several years ago it was suggested to me by my friend Dr. James A. Black of San Francisco, that alcohol injected into the mucous membrane of the nose would relieve hay fever. At the time I thought but little of the suggestion and in fact had very little faith in it, but as different hay fever patients presented themselves, and I was unable to relieve them by other means, I finally decided to try the injection of 95% alcohol into the nose as a cure or relief for hay fever.

One of the first upon which I used the treatment was a particular friend of mine, Mr. S.—, then Mayor of Fresno. The reaction was so great that the Mayor thought he was ruined for life and suffered much more intensely for a few days than he had previously. However, much to his surprise after about ten days, his symptoms entirely disappeared and he has never had a return of the trouble to the present date. With this beginning, I tried an occasional case until about four years ago when I commenced to treat all cases of hay fever that came to me in this same manner. At first I was surprised to find that nearly all of the cases were entirely relieved of the symptoms. At the present time, after treating sixty or seventy cases, I am very much surprised if the patient is *not* relieved.

I make the injection directly into the turbinate body, especially the lower turbinate, also into the sides of the septum as well. The treatment is somewhat painful, even, although, the nasal cavity has been thoroughly anesthetized. There is no pain at the entrance of the needle but upon the injection of the alcohol into the tissues the patient complains of considerable pain for a few moments at each injection, provided the alcohol is properly injected. Several injections should be made on each side, and I have felt in some of the cases in which the treatment was not a success, that the fault lay in my technique rather than with the treatment itself. There is considerable reaction following the treatment lasting from two to seven

days. Relief from the sneezing is usually immediate. I usually prescribe an antiseptic spray to relieve the congestion.

I have been asked by different physicians if there is not an atrophic change following the treatment; loss of smell or some other sequelae. From a great many patients whom I have treated, inquired of, and examined, I can say that in no case has any bad effect or the loss of smell been observed, and in fact no bad effects in any way have followed the treatment so far as I could observe, and no extreme symptoms have been noticed at the time of the treatment.

It is not my purpose to try to explain how this treatment acts upon the tissues nor do I feel equal to explaining the etiology of hay fever, other than to say that it has been supposed to be due to some pollen which is inhaled and causes an irritation of the schneiderian membrane and the nerves of the nose. Dr. Grant Selfridge of San Francisco has been doing extensive work along the line of study of pollenization and the study of vaccine treatment for hay fever. Dr. Selfridge deserves great credit for his work along this line, and believes more firmly than ever in the influence of pollen in true hay fever. It is possible the ductless glands play some important role in its etiology. At any rate, I am sure, as I can prove by numerous cases, that the effect of this injection upon the nerve centers is to remove entirely in a great majority of cases, the sensibility to the pollen, if it be the cause, and in other cases to, a great extent. I presume the injection acts upon the nerves of the nose in the same manner the injection of the branches of the tri-facial nerve relieves facial neuralgia. As to the permanency of the cure, it varies with different people. Some cases which I treated four or five years ago have never had an attack since, although they had suffered each spring and summer previous to the treatment. Others are relieved for one season and have a return of the symptoms each year. Most cases, however, seem to be cured permanently. I have used vaccine to some extent but with little result.

I will report a few cases I have treated within the last few years.

Mrs. C., age about 18 years of Merced, Cal., treated in 1915. Had suffered very severely for several seasons, so much so in fact, that each year she was forced to go to the beach or the mountains. She was rather a nervous individual and probably not as well treated as some other patients. After a few days all symptoms disappeared and at last report, several months ago, she had suffered no return of the trouble. She has been so much pleased with the treatment that she has referred numerous cases to me.

Miss D., age 22, teacher by profession. Had hay fever for several years, also several other members of her family were similarly affected very severely. Was treated in the usual manner and after a few days reported herself entirely relieved. During the summer vacation following the treatment she visited relatives in Texas where several members of the family were affected with the hay fever and was overjoyed to find that she had no return of the attacks.

Dr. I. Had suffered intensely from hay fever. Was treated in 1918 and secured only partial relief. So far this season has suffered somewhat but not

* Read before the Fresno County Medical Society June 3, 1919.

so severely as heretofore. This is one case that cannot be termed a cure.

Mr. K., age 35, member Fresno City Fire Department, referred by local physician. He was suffering severely, tears streaming from his eyes which were red and inflamed, and nose completely obstructed and claimed he had been unable to sleep for several nights. Was treated in the usual manner and returned twenty-four hours afterward so much relieved that he looked like a changed individual. He still remains entirely relieved.

Mr. L., Southern Pacific employee from Tracy, had suffered for three or four years. Was injected on May 10, 1919, and has had perfect relief since that date.

Miss N., age 19, of Visalia, treated in July, 1918. Had suffered from severe attacks for several years. Had a deflected septum which was operated and at the same sitting was injected for hay fever. Had perfect relief until May, 1919, when she again presented herself for treatment. Have not heard from her since the treatment, which occurred on May 21, consequently cannot give the results of the second treatment.

Miss H., age 30. Suffered so severely that each season for the past six or seven years was compelled to go to the mountains or the coast. Was treated on May 2, 1919, and relief was almost immediate. Claims she has practically not sneezed since the treatment.

Mr. H., age 17, of Visalia. Was a very timid individual and I had considerable difficulty in making the injection properly, but he was nevertheless entirely relieved almost immediately. In fact within a week was working as a "hand" in the hay field and has had no return of the symptoms.

Miss F., age 30, of Visalia. Had suffered for years. Was treated in Visalia but not to my entire satisfaction. Had considerable reaction and reported to me two weeks ago that she was not entirely relieved. Since that time her family physician advised me that she was improving.

Mrs. B., a sister of one of the leading physicians of the valley, was referred to me by her brother. She was suffering from a deflected septum which was operated and at the same sitting was injected for the hay fever. She was immediately relieved of all hay fever symptoms practically from the hour of the treatment. I saw her on May 30 and she expressed herself as being very greatly pleased with the result of the treatment, since this is the first season for several years that she has not suffered intensely.

As I said before, in the cases in which a cure was not effected, I am unable to say whether it is due to improper technique on my part, or a peculiar susceptibility of the patient, but I hope to get in touch with most of these unsuccessful cases and see if they cannot be relieved. I have mentioned these cases to show that not every case is cured but I believe my ratio has been five out of six, and most of the cases have had but one treatment.

The treatment is not, as I mentioned before, extremely painful, but it is not as entirely devoid of pain as one would suppose it should be. Some patients seem to suffer very little, while others claim the pain is intense.

I wish to quote verbatim from a letter I received a few days ago from a patient (a minister), Mr. D., whom I treated about April 15, 1919. He had no operation other than the injection of the alcohol into the nose. His letter, dated May 28th, is as follows:

"I have been slow in writing you because I have been out of town and have also been extremely

busy. But this delay has made it possible for me to test out the results of the work you did on my nostrils for the hay-fever. I appear to have received a cure. All symptoms of the hay-fever have passed away. I do not sneeze, my nostrils have cleared completely and I breathe without any hindrance. My eyes do not smart or run any more. It is six years since I began having the hay-fever and every spring I would lose my efficiency and would suffer very much from it, but I feel splendid now, better than in years, and I feel that I am under obligations to you for it. I shall let my friends know about this."

In conclusion:

First—The vaccine treatment of hay fever has not been all that we would desire, and while I am hoping that in time something promising along this line will be found, I do not think as yet the solution of the problem has been found in the vaccines.

Second—The alcohol treatment is much quicker, only one treatment being required usually, and the result in most cases is permanent.

122 Forsythe Building.

CHILDREN'S YEAR IN CALIFORNIA.*

By ADELAIDE BROWN, M. D., San Francisco.

The second year of America's entrance into the world war was declared "Children's Year" by President Wilson. Under the Program of the Children's Bureau, Department of Labor, Washington,—suggested by Miss Julia Lathrop, Director—the slogan "Save 100,000 Babies," of the 300,000 deaths under one year of age in the United States, was established.

This Program was undertaken by the Women's Committee of the Council of Defense, and Dr. Jessica Peixotto of the University of California went to Washington, as Chairman. The Children's Bureau co-operated in every way in printing, extending franking privilege to State Chairman, etc. The States were organized under a State Chairman, and each County under its own Chairman of Children's Year.

California was organized in April, 1918, and secured at once the endorsement of the State Medical Society and the State Board of Health,—thus acknowledging that no program for better health in childhood could be put through without the cordial support and work of the medical profession.

California's share of the babies to be saved is 1822. Our actual results cannot be given before June. The epidemic-free months of the year will be the basis for estimating the effect of the teaching of better child-care during Children's Year.

The work was organized in 52 Counties in the State. The State Board of Health issued its June Bulletin as a "Children's Year Bulletin," and 15,000 copies were distributed. This Bulletin included a very careful article on "Vaccination," certain articles on "Child Hygiene," as well as those on "Birth Registration," "Clean Milk" and "Child Welfare."

The National Program was divided into three campaigns, —

*Read before the Forty-eighth Annual Meeting of the Medical Society, State of California, Santa Barbara, April, 1919.

The *First*, on Weighing and Measuring,
The *Second*, on Recreation, and
The *Third*, called "Back-to-the-School."

The California Committee emphasized for its year's work the Child Hygiene side of the National Program. It carried on the Weighing and Measuring Drive in 38 Counties, which reported in August. Five hundred and forty-one physicians in the State signed the National Weighing and Measuring Cards, which were sent to Chicago to be compiled with the National Report, and 53,462 children were weighed and measured. This is about 20 per cent. of the population under 6 years of age.

Since that time 6 other Counties have Drives under way or completed. Ten Counties are re-weighing their children, and thus emphasizing to the mothers the value of observing the growth of the child and of frequent examinations.

In the total number—

- 46.6 per cent. had physical defects,
- 36 per cent. abnormal tonsils and adenoids,
- 24.7 per cent. were below the height or weight of the National scale,
- 5.5 per cent. had defective teeth.

These statistics were slightly larger in the first 40,000. The Weighing and Measuring Drive gave a great opportunity for education, and every mother was given a Dietary corresponding to the age of her child, various Government pamphlets, and literature on the care of the teeth, as well as a general educational Flier emphasizing the points in perfect childhood.

Birth Registration has been emphasized all over the State. Thirty thousand cards were circulated and sent back to Sacramento, registering the children under one year of age, and when the State Records were searched it was found that the best Counties showed 7 per cent. unregistered and the poorest as high as 26 per cent. unregistered. The County Chairmen followed up these cases of non-registration, with the result that 1710 more children appear on the Register up to January 1, 1919, than the increase of any other preceding years.

The infant mortality in California varies from 14.2,—or 142 per thousand births—to 6.4,—or 64 per thousand births, in San Francisco, and averages 7.8 throughout the State.

The intensive care given in San Francisco to the city's abandoned children, is probably one reason why the infant mortality is low. Under the boarding-out system of the Associated Charities, and the Health Center idea,—as developed for the medical and nursing guidance of this group of babies—their statistics have dropped from 12 per cent.—when the Foundling Asylum was first broken up and the babies boarded in private homes—to 2.8 per cent., the average of the last five years under the supervision of Public Health Nurses and the Children's Health Center.

New Zealand has the lowest national infant mortality rate,—5 per cent.—and this is secured by the same intensive type of work, applied to a country with a population, climate, and territory about equal to California. 5 per cent. for the

State should be the goal toward which we look.

Infant mortality from intestinal disease has been greatly reduced by Feeding Stations, clean milk, and a general education of mothers. The pioneers in this movement—Henry Coit, Emmett Holt, Julia Lathrop, and Nathan Straus—and their co-workers in the National Federation of Women's Clubs, the doctors and the lay-press, have made this drop in infant mortality from intestinal disease, but all deaths are not from intestinal disease. In the first weeks of life the classification of causes for death, from the Vital Statistics Report of 1913, are: prematurity, toxemia of the mother, injuries to the child at birth, syphilis, and malformation of the child.

Certainly better pre-natal care could bring the first four of these causes for infant mortality under control. A fore-seeing of the mechanics of parturition would reduce the injuries at birth, and the toxemias of the mother would be greatly lessened by continuous pre-natal care, as would the losses from syphilis and prematurity. The conditions of the ovum, causing mal-formation of the child, are outside of our range of skill.

The United States does not hold a creditable position as regard maternal mortality,—based on a world study. Next to Spain, she has the highest mortality, and today the great emphasis should be on "better pre-natal care."

The draft statistics certainly have emphasized to the people of the Nation—both lay and professional—that health inspection and repeated physical examinations will bring out faults, the correction of which will add to physical power. The men in the draft were discarded at about 35 per cent. The children of California under six years of age have 47 per cent. of correctable defects. The Children's Year Program offers three modes of meeting this problem:

First—The Public Health Nurse.

Second—The establishment of Observation Centers for childhood, called "Health Centers," where better feeding should be taught, and the growth of the child observed, and

Third—In centralizing the guidance for this type of work by the establishment of a Child Hygiene Bureau under the State Board of Health.

Children's Year in California, in co-operation with the work of the Bureau of Tuberculosis of the State Board of Health, has established 15 County Nurses and many Health Centers started throughout the State.

Under the head of the University Extension work, a Lecture Course was carried on in both Los Angeles and San Francisco during the winter, and two Correspondence Courses on "Scientific Motherhood" are in action.

The establishment of a Child Hygiene Bureau is in the hands of the California State Legislature. Twenty-one States have these Bureaus.—14 of them having been established since the beginning of Children's Year—and Indiana, Connecticut and California have bills before their Legislatures. No State has ever given one up.

The bill establishing a Bureau of Child Hygiene under the State Board of Health of California was signed by Governor Stephens May 27, 1919.

We hope at the next test that California will appear on the Birth Registration Area of the United States. 70 per cent. of the population of the country is included in this Area now. It is in the hands of every physician to assist better Birth Registration.

The Back-to-the-School drive, planned by the National Committee, we have covered in California by giving State-wide publicity to the new Legislation for Better Schools, which Mr. Wood, the Superintendent of Education, has before the Legislature. We have spread Posters and Fliers, furnished by the Government, throughout the State, and have covered the 3000 rural schools,—the one-room school of the State with from seven to thirty children—with a Rural School Health Program of the type of the four-minute talks, furnished to the teacher fourteen pieces of literature on Child Hygiene and a synopsis of these talks.

These were sent to every school in the State, with the co-operation of the County School Superintendents, and many of them are emphasizing the work in their County Institutes.

A booklet on "Clothers for California Children" will complete the literature of Children's Year, and will be issued throughout the State by the first of May. This will cover "Correct Clothing and Shoeing" for children from birth to twelve years of age. The child in the home and at school are both emphasized in this booklet. The play-ground costume of the bloomers and dress for girls, and the abuse of the sweater by boys as an in-door and out-of-door garment, are both emphasized.

Without the support which the California State Medical Society gave to the Children's Year Program, California could not have taken the prominent place which she did take in the development of this Program.

The Executive Committee of Children's Year is glad to have this opportunity to express its appreciation of the work of the medical profession in assisting the Program in California.

UNSATISFACTORY RESULTS FOLLOWING NON-INFECTED FINGER INJURIES IN INDUSTRIAL ACCIDENTS WITH SPECIAL REFERENCE TO AMPUTATIONS.*

By R. W. HARBAUGH, A. B. M. D.; G. F. HELSLEY; C. B. HENSLEY.

In the course of investigation of various matters associated with permanent injuries, I was greatly impressed by the fact that the rehabilitation of the injured workmen seemed often to depend less on the extent of the original injuries than on certain factors which in many cases appeared to be preventable. The purpose of this paper is to point out some of these causes of continued disability, illustrating same by notes which I jotted down on investigation reports at the time of the visits.

Present attention is limited to finger injuries because they comprise an unusually large proportion of industrial injuries and therefore of the cases seen in the investigation. Of 4,265 permanent injuries occurring in California in the years 1914, 1915 and 1916, 2,437, or over 50 per cent. were finger injuries. For the average laborer the fingers are the essential tools of his craft and anything which impairs their function seriously cripples his usefulness. The remarkable development in recent years of various manufacturing industries has multiplied many times the injuries of fingers among machine operators, and it is apparent that insufficient attention has been given this increasingly important subject by surgical writers. Of finger amputations, 1,946 occurred in the three years above mentioned, and only 189 amputations of arms, hands, legs or feet. The average medical college curriculum and surgical text devote undue attention to the latter subject, but little to the former.

Approximately 200 cases of non-infected finger injuries were seen. Practically all these were the results of accidents occurring in the years 1915 and 1916, in a district comprising roughly the northern part of the State of California. Unsatisfactory results were noted in 96 of these cases, 61 of which are presented in the accompanying tabulation. The cases omitted presented no additional features of interest. That 48 per cent. of unsatisfactory results should occur in finger injuries, even though not all are to be considered preventable, is a powerful argument for further consideration of this subject on the part of surgeons.

The cases with a history of infection are not included, for the reason that in them it is impossible now to recognize the problems which were met in the individual cases and to justly criticize the actual results. However, as bearing on these cases, instruction may be gained from the records of men with stiffened fingers who would rather have them off (*vide infra*).

Discredit may be thrown on this work on the ground that a certain proportion of injured workmen are apt to complain of non-existent defects on account of a natural propensity to "kick," or in order to exaggerate their condition for the sake of possible additional compensation. As far as the latter point is concerned, all were informed that the investigation was for statistical purposes only and that it was entirely without the jurisdiction of the investigator to re-open their cases. In fact, in most cases, as they well understood, the lapse of time prevented any possibility of their getting a higher rating. Moreover, in practically all instances the points complained of could be confirmed by objective findings. Care was taken not to suggest any particular symptoms, only such general questions being asked as: "How is the stump?", or "have you had any trouble at your work?"

The men of this series were mostly young and were practically all healthy, vigorous laborers. No inherent constitutional defects accounted for their failure to secure useful fingers after the injuries which they suffered.

*Read before County Medical Society, Dec. 10, 1918.

Group I.

CASES WITH INSUFFICIENT PAD ON STUMP AFTER AMPUTATION.

At the outset it may not be granted that the symptom so universally complained of in this group, sensitiveness to pressure, is due to an insufficiently thick covering of soft tissues over the end of the bone. My experience with such cases, however, has convinced me that it is the essential cause. Often by mere inspection or after palpation of the stump I could anticipate the next words of the injured man—"My finger is so sore on the end that I can't touch it against anything hard."

It would be interesting to see these men five years hence to find if their disability continues. It is the writer's belief that in most cases it will. It was generally claimed that there had been scarcely any improvement after recovery from the original traumatic condition.

The prophylactic remedy for insufficient pad is to shorten the bone until proper flaps can be secured to properly cover the stump. In view of the physiological fact that the tissues in an amputation stump waste away, the advisability of securing thick pads may be questioned. It is true that muscle tissue, and doubtless fat also, in whole or part, disappear from the flaps used to cover a stump, but examination of these stumps some time after the injury indicates that fibrous tissue has been substituted for the tissues that have wasted, and the extent of the development of the fibrous pad seems dependent on the original thickness of the covering (*ceteris paribus*). I have not had an opportunity to make an anatomical study of the stump of a previously amputated finger, but external examination has convinced me of the above fact.

The question of adherent scars is closely related to that of insufficient pad and some cases in Groups I and II are interchangeable. A cicatrix "improperly placed" is not often troublesome unless associated with insufficient pad. But there are many cases in my series where tenderness of the stump was caused by insufficient pad alone, not being associated with an adherent or improperly placed scar, and without evidence of the inclusion of nerve ends in the cicatrix.

GROUP I (16 cases omitted).

(f=finger, prox=proximal, mid=middle, dist=distal, jt=joint, phal=phalanx.)

(Time refers to period between accident and investigation. Occupation is that in which injured was engaged at time of investigation. "Major" and "Minor" refer to major and minor hands.)

T. M., Riveter, 2 yrs., 9 mo.—Loss of thumb at dist. jt., minor. Very sensitive on end; gets sore so injured has to "lay off." Bone too close to skin.

J. C., Carpenter, 2 yrs., 8 mo.—Loss of thumb at dist. jt., minor. Stump is painful, insufficient pad. Very hard to handle nails.

M. C., Salesman, 2 yrs., 8 mo.—Loss of index thru mid. phal., loss of tip of mid. f., minor. Stump of index is satisfactory, but middle finger is so sensitive on the

end because of insufficient pad over end of bone that it cannot be used for any work.

T. H. M., Auto ship worker, 2 yrs., 4 mo.—Loss of index and mid. at prox. jt., minor. Stump of middle finger satisfactory, but index finger very sensitive so that he has to wear glove on that hand.

J. E., Planing Mill man, 2 yrs., 3 mo.—Loss of mid. f. thru mid. phal., major. Pain and swelling if struck; wishes stump were off; insufficient pad.

J. A. La B., Engineer, 2 yrs.—Loss of ring f. at dist. jt., major. Painful on end; bone exposed, not covered by skin.

J. L., Laborer, 1 yr., 11 mo.—Loss of part of dist. phal. major thumb. Pain on touching tip of thumb to solid object, insufficient pad. Cannot return to former occupation, tailor, as thumb is too sore to use in making button holes.

T. J. F., Carpenter, 1 yr., 7 mo.—Loss of mid. f. at dist. jt., minor. Tender on end; insufficient pad. Injured wishes it had been shortened back further.

J. G., Garage Helper, 1 yr., 5 mo.—Loss of mid. f. through terminal phal., major. Very sensitive on end so he cannot touch anything solid against it. Can not work Ford auto throttle; nail deformed; insufficient pad.

J. K., Mechanic, 1 yr., 1 mo.—Loss of index f. at dist. jt., minor. Wound healed satisfactorily, but has become sore again; insufficient pad.

T. A. J., Sawyer, 1 yr., 1 mo.—Loss of ring f. thru mid. phal., minor. End very sensitive if struck and painful in cold weather. Terminal scar; insufficient pad.

N. McC., Machinist, 8 mo.—Loss of index f., at dist. jt., major. End painful on pressure; limited movement; insufficient pad; adherent scar. Injured wishes finger had been severed at proximal joint.

Group II.

UNSATISFACTORY SCARS AFTER AMPUTATIONS.

It is an accepted principle that the scar following an amputation should be kept away from the point of pressure, which indicates a dorsal rather than terminal or volar cicatrix for fingers. In my series, however, there have been but few cases (see V. B., 6th case of Group II), where an improperly placed scar has of itself been the cause of disability, this despite the fact that a very large proportion of the scars are terminal or volar.

The nature of the original injury is usually such that the excess of damage is to the volar tissues leaving a natural dorsal flap which can be brought over and sutured. The amount of shortening which would be necessary to fashion a volar flap to cover the bone end renders this "text book" procedure objectionable. It is true that the skin of the palmar surface has better tactile sensation and stands up better under daily use than the dorsal skin, but these are insufficient reasons for marked shortening of the finger.

It is quite a different matter if a terminal or volar scar is adherent to the bone, associated as it usually is with insufficient pad. Accompanying the tenderness of the whole stump and especially at the scar itself, there will often be distinct limitation of movement on account of pain on sharp forcible flexion, as in grasping a tool. The "drawing" of the soft parts on the adherent scar during flexion can be plainly observed in such cases.

GROUP II (2 cases omitted).

W. A. L., Machinist, 3 yrs., 1 mo.—Loss of thumb at dist. jt., minor. Severe pain on grasping any solid object firmly. Volar, adherent scar.

W. H., Stat. Engineer, 2 yrs., 7 mo.—Loss of thumb at dist. jt., minor. Severe pain on grasping any solid object firmly. Volar, adherent scar.

J. B., Well Driller, 2 yrs., 3 mo.—Loss of thumb at dist. jt., minor. Still tender to pressure. Terminal scar; adherent; insufficient pad.

G. S., Machinist, 2 yrs., 3 mo.—Loss of little f. thru prox. phal., major. Always sore on end and pains severely for long while if struck. Insufficient pad.

M. H., Carpenter, 1 yr., 8 mo.—Loss of thumb thru prox. phal., minor. Very sensitive on end so can not use thumb as opponent to index in handling nails. Terminal scar.

V. B., Laborer, 1 yr., 3 mo.—Loss of mid. f. at distal jt., ring f. just prox. to dist. jt., both major. Very sensitive to pressure. Good pads but volar scars.

E. G., Laborer, 1 yr., 1 mo.—Loss of little f. at prox. jt., minor. Still very tender at scar; has to wear glove at work. Adherent volar scar.

Group III.

ENDS OF SEVERED NERVES CAUGHT IN SCARS AFTER AMPUTATIONS.

The symptoms complained of, attributable to nerves being incorporated in amputation scar, were quite varied, but the most common was a more or less continuous paresthesia—numbness, tingling, "electric shock," etc. More disabling was definite tenderness at the end of the nerve, especially in a volar or terminal scar. On exerting point pressure along the line of the scar a slightly prominent place would be found, gentle pressure on which would cause a distinctly unpleasant sensation to the injured, often accompanied by immediate motor reaction. Such a finger is unsatisfactory.

Wherever it is possible, the nerves should receive the same attention in finger amputations as in a major amputation, at least where the amputation is proximal to the distal joint. The nearer the hand is approached the more essential does this become. Remembering the anatomical relation of the nerves to the arteries, it should not be too difficult to pick up the severed ends and remove the terminal portion.

GROUP III (5 cases omitted).

J. B. P., Millwright, 2 yrs., 9 mo.—Loss of thumb thru prox. phal., index f. thru prox. phal., major. Good movement of stumps but end of index finger very sensitive and with continuous paresthesia. Nerve in scar.

C. W., Laundry Worker, 1 yr., 9 mo.—Loss of index f. thru mid. phal., major (left). Stump sensitive and painful on flexion when there is drawing in of scar. Nerve in scar.

C. J. M., Drayman, 1 yr., 2 mo.—Loss of thumb at dist. jt., minor. End very sensitive and continuous paresthesias. Nerve in scar.

J. M., Carpenter, 1 yr., 2 mo.—Loss of index f. thru prox. phal., minor. Stump very sensitive. Nerve in scar. Neuroma. Trouble in handling nails.

E. W. S., Tallier in lumber mill, 10 mo.—Loss of index f. at dist. jt., minor. Stump not painful, but paresthesia (numb-feeling) constantly. Nerve in scar.

E. W. S., Tallyer in lumber mill, 10 mo.—Loss of all fingers thru metacarpal bones, major. Paresthesias very troublesome, keep him awake at night. Nerves in scar.

H. L., Laborer, 9 mo.—Loss of index, mid., and ring f. at carpo-metacarpal joints. Scar is sensitive. Adherent nerves which will have to be removed.

GROUP IV (6 cases omitted).

DEFORMED NAILS FOLLOWING FINGER AMPUTATIONS

There is scarcely anything more troublesome to a worker than a defective finger nail. In some cases it sticks out from the stump like a hook and catches on things, sometimes tearing off, always very painful. The unfortunate part is that no matter how much trauma is done to the nail it continues to grow in. Sometimes only a fractional and very much disordered matrix survives the original injury and the nail is a mere stub, often narrow and sharp and growing out at right angles to the surface. Pressure on the point of this forces the base into the subjacent tissues and causes excruciating pain. The arrangement of the flaps may carry the matrix on to the terminal or even the volar surface, so the disability which ensues may be easily appreciated.

Unless most of the damage to the soft parts is on the dorsal surface, it is unusual for an amputation distal to the distal joint to be accompanied by a troublesome nail. In such cases the nail usually grows in straight and is highly valued by the injured workman, especially for the protection of a tender stump. In cases of amputation at the distal joint or proximal thereto, the surgeon must consider that the nail, should it appear, will be a nuisance and he ought to take steps to prevent its growth.

However, the essential point regarding a prospective deformed nail is the date relation to the soft parts and not the place at which the bone is amputated. It is surprising to note the reappearance of nails following amputations thru the middle

phalanx (three cases of this group) in which, evidently, a long dorsal flap was preserved. The chance that any little tag end may carry some matrix should be borne in mind—and the less there is of it the more troublesome the resulting nail is likely to be.

GROUP IV. (6 cases omitted).

R. F. H., Tool-man, 2 yrs., 10 mo.—Loss of index f. at dist. jt., mid. f. thru mid. phal., major. Stump of nail on index finger troubles him all the time.

G. A., Lumber yard laborer, 1 yr., 10 mo.—Loss of ring f. thru mid. phal., minor. Defective nail bothers and will have to be removed.

P. J., Machinist, 1 yr., 8 mo.—Loss of index f. at dist. jt., major. Nail grew in and was removed, but still grows in and bothers.

J. A. M., Flour Miller, 1 yr., 6 mo.—Loss of mid. f. thru mid. phal., minor. Defective nail stump gives great trouble.

E. M. S., Gasboat Man, 1 yr., 5 mo.—Loss of substance from dorsum of index f., no bone lost. Sensitive nail stump will have to be removed.

C. F., Cook, 1 yr., 4 mo.—Loss of index f. thru dist. phal., mid. f., thru mid. phal., major. Stumps are good, but defective nail on middle finger bothers him, growing out crooked, catching and tearing off; nail of index finger defective, but no inconvenience.

Group V.

TROPHIC DISTURBANCES—IMPAIRMENT OF CIRCULATION.

In criticizing the results of these cases, I feel that I am standing on rather insecure ground. It must be hard indeed to decide whether or not the nerve and vascular supply of the injured digit is going to be sufficient to maintain its vitality. I wish to point out one fact, however. It is of no value to a laborer to have a finger that is useless and painful, and unless the surgeon is convinced that the flaps have satisfactory anatomic relation to the finger, he should shorten the bone sufficiently to allow the formation of proper covering.

The circulation of every finger is more or less impaired after amputation. For years, most men complain of some pain in cold weather, etc. But the cases I have listed are of much more severe type than this, and it will be noted that most of the injuries have been severe crushing or laceration, following which the finger has had to be rebuilt. These "rebuilt" fingers *look* better than *no* finger and in some walks of life are highly desirable. For a workman they are usually only an annoyance.

GROUP V (3 cases omitted).

L. W. V., Laborer, 2 yrs., 8 mo.—Loss of index f. at mid. jt., minor; result of laceration. Pains in cold weather; trophic disturbance.

C. J., Farm laborer, 1 yr., 2 mo.—Loss of little f. thru mid. phal., immobility at mid. jt., minor; result of catching hand in cogs.

Finger bothers in cold weather; marked trophic disturbance (skin shiny, wasting); cyanotic.

E. E., Tool Grinder, 1 yr., 2 mo.—Loss of index f. at dist. jt., minor. Very sensitive on end because of insufficient pad; marked trophic disturbance. He cannot use the finger at all in work and wishes it were off. Had to give up former occupation, carpentering, because he could not hold nails.

S. H. T., Machinist, 1 yr., 1 mo.—Loss of ring f. at dist. jt., minor; result of crushing injury. Trophic disturbance; wasting, insufficient pad over end and along volar surface so finger is very tender and bothers at work; skin shiny; finger cyanotic.

W. H. L., Marine Engineer, 1 yr.—Loss of index finger thru prox. phal. and immobility of mid. f. at mid. and dist. jts., major; result of severe wound. Middle finger has impairment of sensibility; continuous paresthesias; shiny skin; cyanosis; has to keep it wrapped up in cold weather; finger should be amputated.

Group VI.

IMMOBILITY OF FINGERS WITH CONSEQUENT LOSS OF USEFULNESS.

In most lines of work, it was found that a stiff finger was a liability rather than an asset, especially in cases of ankylosis of more than one joint. In case the surgeon can anticipate such a result it is certainly better to amputate at once.

GROUP VI (2 cases omitted).

S. C., Woodchopper, 2 yrs., 8 mo.—Laceration resulting in immobility of index f., minor, at mid. and dist. jt. Painful volar scar; use of hand seriously interfered with; intends to have finger removed.

C. E. D., Cook, 2 yrs., 7 mo.—Resection of mid. jt. of mid. f., minor, with consequent immobility, deformity and shortening. Finger is in the way at his work and injured wishes that it were off.

R. E., Mill Hand, 2 yrs., 7 mo.—Loss of index f. thru mid. phal., little f. at prox. jt. Severe limited movement of middle and ring fingers at middle and distal joints; all major hand. The stiff, deformed fingers are only in the way and the injured wishes they were off.

S. A. W., Ship Carpenter, 2 yrs.—Limited movement of index f., minor, at all joints. Seriously inconvenienced at work and thinks better if finger were off. Had to give up occupation as house carpenter, as he could not handle little nails.

J. A. H., Machinist, 2 yrs., 3 mo.—Severe laceration of ring f. and little f., resulting in limitation of flexion; major. Fingers are in the way for certain work and injured wants them amputated.

N. M., Section Foreman, 1 yr., 2 mo.—Immobility of index f. at dist. and mid. jts., major. Serious inconvenience. Injured re-

quested amputation at middle joint but was refused. Thinks much better if off.

Group VII.

MISCELLANEOUS DEFECTS.

The two cases of digits which give trouble solely because they are so large on the end, should be borne in mind in fashioning the flaps of an amputation. The bony processes which give trouble may be from misplaced pieces or may be real bony outgrowths. Care must be exercised to see that the bone is left smooth and that no loose fragments remain.

GROUP VII.

- E. W. J., Lard Refiner, 2 yrs., 8 mo.—Compound fracture of thumb, minor. Limited motion of distal joint. Proximal phalanx is so close to volar surface that thumb blisters whenever he uses it; very painful in cold weather.
- A. A., Stock Clerk, 2 yrs., 2 mo.—Immobility of thumb at dist. jt., minor, following fracture. Exostosis on volar surface forms painful knob under skin.
- W. G., Shipfitter, 2 yrs., 1 mo.—Loss of thumb thru dist. phal., minor. Dorsal scar. Not sensitive on end. Good stump except that it is large, bulbous on the end, making it inconvenient to pick up anything small, as a tack.
- J. McP., Laborer, 1 yr., 8 mo.—Loss of index f. at dist. jt., minor. Insufficient pad; tactile sensibility destroyed but stump is painful.
- J. R., Planer, 1 yr., 7 mo.—Loss of mid. f. thru mid. phal., major. Good stump except enlarged at end so that it gets skinned.
- E. E. T., Crane Operator, 1 yr., 6 mo.—Loss of mid. f. at prox. jt., minor. Sharp bony process palpable on volar surface at site of amputation, which is tender to pressure.
- M. F., Laborer, 1 yr., 2 mo.—Loss of tip of thumb, minor; painful on end, especially in cold weather so that he has to quit work.

Group VIII.

COMBINED DEFECTS.

Little need be added regarding these cases. They are, in the main, simply further examples of points previously brought out. I would call special attention to the fourth case, W. S., where it was thought an amputation would be necessary, but later it was decided not. The first thought was evidently the best one. The fifth case, W. E. McE., illustrates the general futility of stitching an amputated piece back on the stump and expecting a satisfactory working-man's finger to result.

GROUP VIII (5 cases omitted).

- W. H. S., Laborer, 2 yrs., 10 mo.—Loss of mid. f. thru mid. phal., loss of substance from dorsum of ring f., minor. Nerve end in scar of middle finger is very sensitive. Deformed nail of ring finger.
- A. P. M., Machinist, 2 yrs., 4 mo.—Loss of index and mid. f., thru dist. phalanges, major.

Bothered by tenderness at all work. Volar scar on middle finger with sensitive nerve end. Defective nails bother him.

- N. T., Carpenter, 2 yrs., 4 mo.—Loss of index f. at mid. jt., minor. Insufficient pad; continuous paresthesias from nerve ends in scar. Greatly inconvenienced at his work holding nails.
- W. S., Carpenter, 2 yrs., 4 mo.—Loss of substance of thumb, minor; result of a crushing injury and perforation of end of the thumb by nail. It was first thought that amputation would be necessary. Defective nail causes bleeding when he touches anything with it. Thumb pains when he touches any hard surface and pains unbearably in winter.
- W. E. McE., Laborer, 1 yr., 11 mo.—Wound of dist. phal. of index f., major. Finger gets so cold in winter injured has to sit on it. Wishes finger were amputated. Tip of finger was practically amputated, but was replaced and grew. Damaged nail bothers very much; tingling feeling continuously.
- J. U., Cooper, 1 yr., 11 mo.—Loss of substance mid. f., major. No bone lost. Stump is very sensitive on end; insufficient pad; deformed nail; injured thinks finger should have been amputated further proximally.
- A. B., Comptometer Operator and Typist, 1 yr., 10 mo.—Loss of index finger thru dist. phal., minor. Tip gets blue and pains severely clear up to forearm in cold weather. Very tender on end account of insufficient pad. Injured cannot use finger at work.
- F. C. H., Blacksmith, 1 yr., 10 mo.—Loss of thumb at dist. jt., major. Limited movement; volar scar; insufficient pad; a new operation needed to shorten bone.
- H. W., Hardware Clerk, 1 yr.—Loss of mid. f. thru mid. phal., index f. at dist. jt., minor. Imperfect nail on index finger. Very troublesome. Adherent scar and insufficient pad at end of middle finger causing pain on flexion so that grip is impaired. Dynamometer—right, 62 kilos; left, 39 kilos.
- T. E., Cannery Laborer, 10 mo.—Loss of index and mid. f. at dist. jt., little f. at mid. jt., all major. All ends sensitive; bone exposed on index finger; sensitive nerves in scars of little and ring fingers.
- A. H., Blacksmith, 10 mo.—Loss of little f. at dist. jt., major. Terminal scar which won't "callous over"; sensitive if struck; piece of nail bothers him.

It would appear to be an ideal plan to refrain from shortening back the finger or doing other operative work until it can be determined just how much is going to be absolutely necessary. The difficulty with this is, that the original convalescence is thereby usually much prolonged, a serious

matter to a laboring man with dependents, and unnecessary suffering, often severe, is caused.

More important, however, as is shown by many of the above cases, is the fact that if a surgeon lets the finger heal to see just what may be needed in the way of further work, the chances are that he will never have an opportunity to do anything more. The average laborer is very reluctant to place himself again under the attention of a surgeon. Although he suffers severely from a defect and would like to have it corrected, there is a certain inertia preventing his having the work done and he often feels that "maybe the doctor will just make it worse." Furthermore, the time of his second operation will constitute a further drain on his finances.

It appears that later operative work is not exceptionally successful, particularly in reference to nails. Some cases have had several operations to remove the matrix, the final result being unsuccessful.

In treating the injured finger of a workman, the essential point to be borne in mind is that he should be given the most useful hand possible. For some classes of people the possession of an apparently intact hand is a great asset, but the presence on a laborer's hand of a stiff finger that is only in his way or a good long stump that is so sore on the end that he cannot use it, indicates that the surgeon has not done his full duty.

Special attention should be given to the occupation of the injured man. We should adapt the final result to the work in which he intends to engage as soon as he has recovered. Many cases in which remediable defects seriously hindered work at some skilled trade were noted. E. g., the extreme importance of a properly functioning thumb and index finger on the minor hand of a carpenter is indicated by cases. J. C., Group I, 2nd case; N. H., Group II, 5th case; J. M., Group III, 4th case; R. R., Group V, 3rd case; S. A. W., Group VI, 5th case; N. T., Group VIII, 3rd case.

Though somewhat in the nature of a digression, I wish to speak of a fact which is incorrectly stated in many texts. Following amputation of a finger at the middle joint, or through the proximal phalanx, it seems to be expected that great limitation of movement of the stump will occur because of the attachment of the long flexors and extensor only to the middle and distal phalanges. In scarcely a single case of such amputations have I found a serious limitation of movement, and in most cases the full range seemed to be present with good strength. The power usually present would seem to be greater than could be accounted for by the function of the small muscles of the hand and I believe that the function of the larger muscles is, as a rule, preserved. In many cases of traumatic amputation it seems unlikely that the surgeon has been able to secure the ends of the retracted tendons and secure to the terminal end of the stump, and in some cases I know that this has not been done. Yet good function has been secured. It is, therefore, my opinion that the long muscles retain working attachment to the proximal phalanx either through normal anatomical structures, the dense

fibrous tissue on the dorsum with which the extensor tendon is closely incorporated, the vincula tendinum on the volar surface, or by firm cicatricial tissue developed as result of the trauma. Doubtless a combination of these two factors is the true picture.

It may be worth while also to emphasize the fact that while the fibrous expansions and attachments of the tendons of the common extensors are such as to make extensive retraction exceedingly unlikely, the common flexors are entirely free to retract as far as the attachments of their synovial sheaths and lumbricals will permit in case of amputations through the proximal phalanx. The extensor tendons are so firmly united to the capsules of the metatarsal phalangeal joints and to the phalanges themselves that any but a very slight retraction would seem to be impossible, hence even if the cut ends would not gain secondary attachments they undoubtedly would have a powerful extensor effect. Since the tendons of the flexors are not so related any adhesions could make them active upon such amputated stumps. An investigation is now being carried forward to determine if possible whether the movements of flexion in such stumps are anywhere near as powerful as extension. If not, such flexor movements as they have made possible will be due solely to the lumbricals reinforced slightly by the interossei in all and specially in case of the second, fourth and fifth fingers. Since the middle finger has no palmar interossei its stump could, of course, not be flexed at all if that flexion depended upon the palmar interossei. The same thing holds true for the fifth finger in the movements of extension, if this movement also depended solely upon the interossei as we have intimated. It is not exactly certain to just what extent activity of the interossei shows itself in abduction or adduction of the stumps in extension and flexion. This point will also be the subject for another investigation.

It is possible that the proximal portion of the middle phalanx has been preserved many times when it had much better come off, but the surgeon did not want to leave an immobile stump. Also the choice of amputation site may have been at the proximal end of the proximal phalanx rather than through its middle or at the distal end, in order to avoid a stump, which, immobile, would be a nuisance. Either of these procedures is unnecessary and impairs the usefulness of injured's hand. These stumps are never immobile unless some additional factors come into play.

CONCLUSIONS:

(1) The frequency of finger injuries renders this possibly the most important subject in industrial accident surgery.

(2) To avoid an over-sensitive stump a good pad of soft tissue should overlie the bond end.

(3) The position of the scar is less important than the question whether it is adherent to the bone (associated with insufficient pad), or has a nerve end caught in it.

(4) Wherever possible, severed nerves should be shortened to avoid inclusion of the end in the cicatrix.

(5) The possibility of a troublesome deformed nail should be considered where the damage to the soft parts extends as far proximally as the distal joint, and a defective nail may still appear in case of amputation thru the middle phalanx, depending on the size of the dorsal flap. Such nails are a nuisance and should be avoided by removal of the entire matrix.

(6) A finger "rebuilt" after severe damage is more than likely to be a nuisance to a laborer. Assurance must be had of blood and nerve supply sufficient to maintain normal vitality. Otherwise amputation is preferable.

(7) Dependent somewhat on the nature of the occupation, a stiff finger is usually of no utility and impairs the function of the hand. If the adjacent finger is also injured severely, it is more often advisable to save a severely damaged finger.

(8) Amputation flaps should be neatly constructed and the bone end carefully inspected for irregularities or loose fragments.

(9) It is usually better to do all operative work at once rather than wait for later developments.

(10) The surgeon should remember that a laborer's hand is going to be used to work with, and he should, when possible, adapt the result to the occupation of the injured.

(11) Stumps of fingers amputated at the middle joint or through the proximal phalanx are mobile, and good function is the rule.

It is a serious matter to accuse surgeons of disregard for the welfare of the injured person for the benefit of the insurance carrier, and such a charge is by no means on the whole justified. Many of the defects above enumerated could have been avoided without increasing the compensation paid. However, there is a definite tendency on the part of some practitioners to avoid removal of the terminal portion of a phalanx if it is in any way possible to cover it with soft parts, it being apparently a matter of secondary importance how little vitality is preserved in the scraps of tissue or how thin the terminal pad. This is, in fact, the honest teaching of many surgeons, but in some instances the perpetrators of such work have spoken to me of such cases with pride—because they had thereby *just* been able to prevent the patient from getting the next higher rating.

I make no reservation when I state that the matter of prospective compensation should be dismissed utterly from one's mind in handling a case of industrial injury. Any other attitude must inevitably work to the disadvantage of the injured workman, the one whose interest the attending surgeon is, by the standards of his profession, bound to consider all-important.

The work in this paper has been done by G. F. Helsley, Senior Medical Student, Stanford University, and Mr. C. B. Hensley, Statistician for the Industrial Accident Commission.

THE PROBLEM OF THE WOMAN VENEREAL DISEASE CARRIER.*

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When the Federal authorities chose to recognize the danger to the troops presented by the presence of women venereal disease carriers in the vicinities of the army camps, a great step in the fight against these diseases had been taken. In discussing the problem of the woman infected by syphilis or gonorrhoea, the fact that both men and women are carriers, should not be ignored; however, the women are the more conspicuous individuals, often passing their lives in response to the demand for illicit sex relations, and they can usually be apprehended readily enough. They form a social group, for which society has but little consideration, whereas their patrons, on whose bounty they subsist, frequently are able by the strength of their social and economic positions to avoid entirely most of the unpleasant consequences of vicious acts. Punishment or care for the women alone, has never and will never solve the problem, of eradicating venereal disease. Moreover, from the standpoint of public health, one of the most significant aspects is the association of prostitution with venereal diseases and the dissemination of the infection outside of the circle of the original offender. The prostitute simply satisfies a demand, and so far as information can be obtained the supply, even now, does not exceed the demand. This means but one thing, that if prostitution and its associated diseases are ever to disappear, education alone will bring this about. The single standard of morals in sex matters, only a few years ago, was laughed at as impossible and even undesirable. The whole world knows differently now. As with most great and lasting things, full understanding is necessary for a change in attitude. An old argument on the part of the prostitute in her own behalf and one which is even now advanced occasionally, has been that the prostitute saves the other woman by a voluntary entrance into a life of vice, simply assuming that illicit sex relations must be taken as a matter of course. Experience with the great body of men enlisted by the Government, has rendered this defense a vain one.

Inasmuch as sex immorality was known to be the greatest factor in the exposure to venereal disease it was at once judged essential to keep the soldier away from the prostitute. As a result of the desire on the part of the Government to free localities from camp followers, who would be a menace to the health and efficiency of the men, special efforts were made during the war to apprehend and examine all suspicious women in the vicinity of the camps. With this work the state and local officials cooperated. Records of women so arrested and examined are now available for the year 1918. Throughout the State of California, 3066 women were held for examination and of these, 1969 or 64% were

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found to be infected with syphilis or gonorrhoea or both.

Women venereal disease carriers are of several types, socially and in every other way. First, there is the innocent woman or girl, who acquires an infection and who at once becomes a source of danger. Innocent though her share of the difficulty may be, she may readily infect a sister or any other member of her household unwittingly. To be sure, this type presents a comparatively insignificant problem, and is only mentioned to bring out the fact that all venereal disease is not invariably an evidence of guilt, and again that venereal disease is always, no matter where it is found, a source of danger in the community.

Probably the most important group in the matter of the transmission of disease is that of the commercial prostitute. The woman of this type depends in part or entirely on the profits of a life of vice for her livelihood. She may be an inmate of a house of ill fame, or she may keep an apartment of her own to which visitors regularly come; but the commercial aspect is the important one for her. These women may take good care of their health but sooner or later it is the rule that a venereal disease is contracted. The commercial prostitute may be a woman of taste and refinement with high intellectual abilities along many lines, but whatever may have been her possibilities earlier in life, when she has once become a finished prostitute she apparently can no longer understand the moral arguments against a life of her kind, though she resents bitterly the social discrimination against her. However, she herself is inconsistent in this respect, for when it comes to judgment of her less prosperous and successful sisters, no one could possibly be more harsh and unsympathetic toward them in their wretched state than she is.

Another type, and an important one, is made up of irresponsible individuals, young inexperienced girls and feeble-minded girls and women. Many of these, coming from vicious and depraved homes, have acquired a sickening knowledge of vice in all of its forms from their earliest days. To them sex immorality is taken quite as a matter of course and as one girl put it, "I don't see what there is to make such a fuss about, anyway." With many of these girls the commercial element plays a very small part or none at all.

On the part of the feeble-minded woman there can, of course, be no real understanding of the social argument against immorality and every feeble-minded woman, unsupervised in a community is a potential carrier of venereal disease so long as there is any demand for anything she can offer. This fact is in itself proof of the contention that society and the individual would each benefit if every feeble-minded woman were properly segregated either within an institution or in any other way in which adequate protection could be afforded.

In all studies of the prostitutes who have been detained in hospitals or elsewhere for treatment a considerable proportion has been found to be made up of feeble-minded individuals, absolutely

incapable of conducting their own affairs under ordinary conditions. Many others are exceedingly dull or borderline individuals, who need special care and training to fit themselves to earn any sort of a decent livelihood. Few of these women admit that they are infected and many seem honestly to believe that society has been conspiring against them in taking from them their only occupation and in forcing them to submit to treatment under jail conditions.

One cottage at the Sonoma State Home is now being filled with feeble-minded, delinquent women, most of whom have had to be treated for venereal disease before being sent to the institution. Because the facilities have always been inadequate to care for more than a limited number, there are many of these individuals, needing constant life-long care, who are at large in various communities where their menace to public health is unsuspected. More institutional care must be provided for these women in order that the public may be protected against them and their progeny.

One characteristic common to most prostitutes is a disinclination for exertion, either mental or physical. They acquire early in their careers habits of idleness and luxury which unfit them to earn their incomes in ordinary decent ways, and when confronted with the necessity of changing their mode of living they are completely at a loss, saying frankly that their earning power is not great enough to provide them bread alone. This phase of character is so common that local police officials, when confronted by women who have been apprehended again and again for the same offenses, have reiterated that if there were only a place to which these women might be sentenced, for educational purposes, the problem would be simplified. The measure now before the Legislature which provides for a State Industrial Farm for delinquent women aims to fill this need.

The nomadic lives led by prostitutes make an interesting study. Since the number of social workers has been increased throughout the State there have been numerous opportunities of tracing the comings and goings of these wanderers, especially those who are held in detention for the treatment of the infectious stages of venereal disease, and who report only sporadically for further treatment. In an effort to have these women continue treatment until cured, health officers and social service workers have cooperated successfully. Recently the number of patients known to have begun treatment in one town and known to have moved to another place, neglecting to care for themselves physically, has increased. It is gratifying to be able to relate that owing to the kindly efforts of the social service workers, many of these patients have been found and have been induced to continue treatment voluntarily. However, no amount of explanation or persuasion can accomplish results with the anti-social individuals who have been infected so long that they firmly believe their condition to be quite normal and for them forcible detention is necessary if they are to be rendered even temporarily non-infectious.

The question may well be asked, what is the use of spending money and energy in treating these women and releasing them to be re-infected in a few weeks. This is another argument for prolonged detention and training for these individuals inasmuch as the regenerative influence of a few weeks' stay in a hospital can scarce be expected to counteract the effect of years of idleness and self-indulgence.

Perhaps as satisfactory a way of presenting a picture of the prostitute type will be to give some of the more interesting stories in detail.

J. M. G.—This woman is fairly typical of the feeble-minded individual, who becomes a prostitute by force of circumstances, rather than from any special inclination on her own part. She was first met with six years ago, in the maternity ward of a hospital, where she had gone to await the birth of her illegitimate child. It was obvious to those with whom she came in contact that her intelligence was of a low order and a mental examination was made. Julia was then thirty-three years of age and she told the following story of her early life and experiences:

When about seven or eight years old, she had been placed by her mother in a local orphanage. The father was dead and the mother irresponsible and decidedly lacking in interest in her children. The mother was also habitually alcoholic. Julia attended school in the institution and managed to get into the fourth grade by the time she was fifteen years old. She was then placed out in a family where she received a small wage in addition to her board and room in return for such services as she could render about the house. She was unsophisticated and no one was much interested in her pleasures and in a year from the time she left the orphanage she gave birth to an illegitimate child. As she herself explained, she did not realize that this could happen because no one had ever explained the possibility to her. The child was peculiar, had cleft palate and hare lip and died shortly after birth. Julia had learned her lesson and presently found another position in a family. She was then sixteen years old and for the next sixteen years she worked steadily, even managing to save a little money. Presently a man came upon the scene and paid her much attention. She thought he intended to marry her but when she became pregnant, he would no longer have anything to do with her. At the same time she lost her position and soon all her small savings were used up in paying for her living expenses. It was at this time that she was examined in the hospital. Her mental capacity was low, approximately that of a nine-year-old child, and her practical ability and judgment were very inferior. She could not make simple change and in every way showed her marked mental inferiority. It was impossible to secure her admission to the home for the feeble-minded at this time and other plans had to be made. She said that she did not wish to marry the father of her child and only wanted a place where she could support herself and her baby. Arrangements were made to place her with an association which agreed to find work for her, but the child's father appeared on the scene and a marriage was arranged. The father was a drunkard and never provided for his wife and child but by this time Julia had gotten to the point where she was no longer ambitious to earn her own living and preferred to live with him under the worst possible conditions, rather than to work. In the meantime she had contracted syphilis from her husband and when a year later her third child was born, both she and the child were in bad physical condition. Still she was unwilling to be

sterilized, but said that she would not keep any more of her babies, but would adopt them out before she got to be fond of them. In another year her fourth child was born, also syphilitic, and when this baby was only a few days old, the drunken father seized it roughly and the child's death resulted. The next or fifth child was still-born and by this time the conditions in this household were so bad that the children were taken from the parents because of gross neglect. Both the living children are feeble-minded and are only waiting till room can be made for them in the Home for the Feeble-Minded. Within the last six months the drunken husband has been committed to jail, and the woman, lonely and destitute, entirely out of the habit of working, has become a common prostitute, soliciting in the streets. A few weeks ago, she was examined for venereal disease and found to be infected with an acute gonorrhoea. She naively explained that she was afraid she was pregnant again and felt that her husband would not be very pleasant about it when he was released from jail. This is the sordid story of one feeble-minded woman, left unsupervised in the community. There is nothing to show for her life except two imbecile children who are being supported by the county and her whole existence has been one series of wretched experiences after another. Surely it should not be necessary to argue the need of permanent care for such an individual as this and if Julia had been placed in the proper institution when a young girl, both she and the community would have been spared much.

V. L.—This woman was thirty years old when arrested for keeping a house of ill fame. She was born in Paris. Her mother and most of the other women in the family were frankly prostitutes, regarding this as a legitimate profession of which no one need be really ashamed. Her own attitude toward prostitution is readily shown by the remark made to a woman physician with whom she was talking, "Your business is a good one, I guess, better than mine is now. Mine is too bad now." She is attractive and intelligent with a keen, shrewd business sense, and it was rumored that at the time of her arrest she had a bank account of \$60,000. She had come to America, following a twin sister who had left prostitution and had married a musician who came on a tour to America. Valentine, herself, had married early in life, but had been a prostitute before her marriage and continued this life. Her little son a lad of ten years, is being educated in a good school in Paris. This type of woman is literally born into her business. For her it is a legitimate and profitable life and the unpleasant side she accepts as a part of the necessary evil associated with making one's way in the world. The arrest was a disgrace and she could not at all understand how her conduct had in any way warranted the publicity which she was receiving. Her attitude was naive and while she granted that prostitution was a "bad business," it was simply because it was attended with too much notoriety.

K. F.—This woman is now twenty-two years old and is at present in jail because of having made a serious disturbance in the hospital where she was held for treatment. This girl has been known to the courts for the past seven years. At fifteen years she was first brought into the Juvenile Court and investigation of her life showed her to be promiscuously immoral, associating with negroes and orientals and any others who chanced to come her way. Kate was a very pretty girl with good intelligence and a realization at times, at any rate, that she was missing much that was good in life. She was placed on probation again and again and every effort was made in a friendly way to help her to make a pleasant

place for herself. But after a short time of effort to lead a decent life, there would be an entire breaking away from all restraint and presently the girl would be located, usually in the most vicious neighborhood which could be found. From her youth Kate could never be regarded as a passive victim. Always she was the aggressor and she repeatedly admitted that her sex appetite was absolutely beyond her control, that she realized that she was making misery for herself, but that she could not help it. Finally after a comparatively long period of decent living she married a young naval officer and those interested in her hoped that her troubles were at an end. Ordinary home life failed to satisfy her, however, and presently she left her husband and in a few months' time was arrested in a raid on a disreputable house. There seems to be little to hope for with this girl. Her personal attractiveness and mental ability are high, but her sudden outbursts of sex feeling seem definitely allied to such conditions as dipsomania and because of them she is likely to go down through her life as a wretched creature, seeing what she is and what she has missed, but powerless to change matters.

The M. Family.—This family has for many years been known to most of the social and reformatory agencies working near San Francisco. Three generations are at present being supported almost entirely by the public and all have been or will be complete social failures. The grandmother is an epileptic, defective individual now in the State Home for the Feeble-Minded. This woman always had very questionable morals and her children were brought up in an atmosphere of neglect and viciousness which resulted in immorality on the part of the daughters as soon as they were old enough to go about. The oldest of these daughters married at about nineteen years and both she and her husband were known to have syphilis. They have three children, all syphilitic, and so badly did they neglect these unfortunate little ones that the Society for the Prevention of Cruelty to Children brought the matter to the attention of the court and the children were placed in homes at the expense of the community. The second daughter, a feeble-minded girl, became a prostitute at about fifteen years of age and after several years of probation and a stay in a girls' reformatory was finally sent to the Home for the Feeble-Minded where she now is. The third child, a lad of 17 years, is an epileptic imbecile with signs of congenital syphilis and the youngest child, a girl of twelve years, is also feeble-minded with severe and typical signs of congenital syphilis and a triple-plus Wassermann reaction. If the grandmother, when a girl had been recognized as a feeble-minded individual and placed in the institution in which she now is, the community would have been saved many thousands of dollars which it is now spending in the care of her defective and undesirable off-spring.

THE TREATMENT OF GONORRHEA AND SYPHILIS IN WOMEN.*

By WILLIAM E. STEVENS and MAURICE HEIPNER
San Francisco

In a recent appeal addressed to the physicians of the country for co-operation in the fight against venereal diseases the Surgeon-General of the United States Public Health Service states that there is danger of an alarming spread of these in-

fections during the reconstruction period. He calls attention to the fact that many physicians are careless in their methods of treatment and consequently responsible in a measure for the continued existence and dissemination of these conditions. This criticism applies with particular force to the conduct of these cases in women for, notwithstanding the very disastrous and at times fatal consequences of Neisserian infection in this sex, as well as the greater danger to the public at large, there is probably no other pathological condition of the female genito-urinary tract which is more often neglected. That this is not entirely the fault of the medical man, however, must be admitted, for ignorance on the part of these patients as to the presence of infection and the indifference and carelessness in the observance of the physician's instructions characteristic of both sexes, contribute in a large measure to the prevalence of both gonorrhoea and syphilis. In view of the expected increase associated with demobilization it seems opportune at this time to consider the question of treatment. As the majority of these infections are first seen by the general practitioner it is upon him that we must depend for their early eradication thereby eliminating the foci responsible for the general dissemination of these diseases.

This paper is based upon the treatment in a ward in the San Francisco Hospital, provided for that purpose by the San Francisco Board of Health, of two hundred and forty women suffering from gonorrhoea and one hundred and forty-two infected with syphilis in addition to a large number of cases treated in clinic and private practice. As those patients confined in the hospital were under restraint an unusual opportunity of observing the effects of treatment was afforded us.

We wish to present for your consideration procedures which in our experience have been found most efficacious hoping that the discussion will bring out additional suggestions of interest and value.

Urethritis.—Acute urethritis is best treated by rest, diet, a large amount of water internally, a good quality of sandalwood oil and the injection of a one to one thousand solution of acriflavine. The latter dye was recently introduced in England for the treatment of infected wounds and is most efficacious in gonorrhoea of both the male and female urethra. A number of patients have been cured after five or six injections and its therapeutic value far exceeds that of argyrol, protargol and other silver preparations which are now in vogue.

In chronic urethritis we have obtained the best results with instillations of one to three per cent. solutions of silver nitrate and, when indicated, endoscopic applications of ten per cent. solutions of the same drug. Preceding this treatment small meati and strictures, by no means uncommon in the female urethra, are dilated and involved glands destroyed.

Skenitis.—In the presence of infection of Skenes

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glands a fine probe is introduced as far as possible into the duct which is then laid open with a curved bistoury. The gland is destroyed by the application of carbolic acid, followed by alcohol and a small packing of gauze is then inserted. This is changed daily and the wound which is permitted to heal by granulation usually closes within ten days, this point of infection being then eliminated.

The glands of Bartholin like Skenes glands are favorite locations for the gonococcus. They lie partly in the anterior leaf of the triangular ligament and a portion of them is covered by the posterior portion of the bulbous vestibuli and the bulbo-cavernous muscle. The technic used in the excision if these glands is as follows:

An incision one inch in length is made along the outer margin of the labia minora extending an equal distance above and below the posterior commissure. With a blunt pair of curved Mayo scissors the fascia between the lateral wall of the vagina and the sphincter vaginae muscle is separated and the gland which is easily recognized by its smooth glistening capsule is then pulled into view with an Alice clamp. The upper end of the incision should be avoided during the dissection because of the proximity of the bulbous vestibuli puncture of which results in considerable bleeding. The outer side of the gland is first freed and the duct when reached is ligated close to the vaginal wall. Although as a rule there is very little bleeding, it is advisable to tie all vessels. The wound is closed from the bottom up with plain catgut, no drainage being used. Incision of the vaginal wall eliminates all chance of the wound healing by primary intention. Regardless of this accident the number of wounds in this locality healing by first intention is obviously small. This result was achieved in but eighteen, or thirty-four and six-tenths per cent. of our series of fifty-two operations.

It is interesting to note that in twenty-nine of these cases smears of the discharge which were negative for gonococci before operation became positive in the secretion from the wound for several days thereafter.

Cervix.—Endocervicitis is always treated by cauterization as this is the only method we have found to be of definite value.

Infection higher up must receive proper attention before permanent results will be obtained. It has been our experience that injections and local applications are of little or no value in involvement of glandular structures. Radical treatment, in other words destruction or removal of the glands, is essential to recovery.

The records of thirty-three of the cases in this series are seen on the accompanying chart. Features of interest are the absence of frequency or other urinary symptoms supposed to be associated with the majority of cases of urethritis in women, and the common occurrence of salpingitis as a complication.

Seventy-six of our patients were cured, twelve per cent. doubtful and twelve per cent. uncured.

SYPHILIS.

We consider a combined fairly intensive method of treatment most efficacious in syphilis and this procedure was followed in the present series of cases.

Arsphenamine is administered intravenously at intervals of one week together with either inunctions of mercury ointment, weekly intramuscular injections of mercury salicylate with quinine and urca hydrochloride or intravenous injections of mercury bichloride. Potassium iodide is given in graduated doses by mouth.

A ten to twenty c. c. Luer syringe is superior to any gravity apparatus for the administration of arsphenamine. With this method a smaller needle may be used which in addition to being less painful permits of the utilization of smaller veins and prevents in a measure too rapid injection. Of still greater importance, however, is the fact that the number of reactions following the use of a smaller quantity of water is decidedly less. Although convinced of this fact we determined to prove it by actual comparison. Six decigrams of arsphenamine were dissolved in fifty c. c. of freshly distilled sterile water which had been boiled a short time previously, and injected into the veins of eight patients. Reactions occurred in three cases, or thirty-seven and one-half per cent. After ten subsequent injections containing the same amount of arsphenamine similarly prepared in ten c. c. of water no reaction followed.

The question as to the proper interval between arsphenamine injections is one over which much discussion has arisen and opinions vary from one day to six months. Hazen of Washington claims that in nineteen patients with a positive Wassermann a negative was obtained in every case except one following three injections of 0.4 of arsphenamine per one hundred and fifty pounds of body weight at seventy-two hours intervals. In order to verify this interesting result 0.6 of arsphenamine were administered to five positive cases in this manner. A negative Wassermann resulted in but one instance and this patient's blood gave a one plus Gradwohl.

We are in the habit of using a sharp twenty-one gauge needle one and one-quarter inches long. This is inserted with the bevel upward and the back flow of blood into the syringe indicates that the vein has been entered. The needle is then pressed a little further into the lumen in order to make certain that the entire opening of the needle is in the vessel thus avoiding the possibility of injecting a portion of the solution into the wall of the latter or into the surrounding tissues, accidents which not infrequently occur if this precaution is not taken.

The water in which the arsphenamine is dissolved is distilled on the day of administration and also boiled for a period of fifteen minutes. Close adherence to this detail results in a marked diminution in the number of reactions.

Following the addition of the arsphenamine the mixture is heated in an Erlenmeyer flask or mortar over a water-bath, solution being expedited by shaking the flask vigorously or if the

mortar is used by stirring with the pestle. The solution is always filtered through sterile cotton. Before injecting a little blood is drawn into the syringe. This renders the solution less irritating and moreover is first injected if the needle is not entirely within the lumen of the vein. Precaution is taken to inject slowly, thus avoiding distention of the vessel which is a frequent source of pain. Before removing the needle a little blood is again drawn into the syringe in order to reassure the operator as to the position of the needle and to prevent the escape of any solution which might remain in the same. During injection the patient is questioned as to the presence of pain or burning. The former is caused by stretching of the vein from too rapid injection, and the latter follows the escape of some of the fluid into the surrounding tissues or wall of the vein. In the latter event the needle is withdrawn and a new site selected. The discomfort following these accidents is relieved by hot magnesium sulphate compresses and occasionally by the application of a splint to the arm.

Suppuration which seldom follows occurred but once in over one thousand injections.

Phlebitis is due to introduction of the solution beneath the endothelium of the vein. If its concentration were the causative factor this complication would occur much more frequently following the utilization of small vessels which is frequently necessary especially in women. We have at times been obliged to use veins the lumen of which was but little larger than the caliber of the needle. It should be unnecessary to cut down upon them.

As will be seen by chart two we have had comparatively few reactions and these were as a rule mild.

Mercury inunctions are used at the beginning of treatment as these may be discontinued at the first evidence of an idiosyncrasy on the part of the patient, whereas it is impossible to withdraw anything that has once been injected.

Unctol, a much-advertised preparation, was used in a number of cases, as much as twenty drams being used daily for six days without symptoms of salivation. Two patients were given from forty-eight to sixty rubs with this ointment without apparent results. The same amount of a thirty-three and one-third per cent. calomel ointment was used in a similar manner without results, and these two preparations were consequently discarded.

For intramuscular injection mercury salicylate with quinine and urea hydrochloride has been found satisfactory and is less painful than other preparations. Mercury bichloride which may be administered intravenously in doses of one-twentieth to one-sixth of a grain possesses the advantage of accuracy of dosage in addition to freedom from pain and the subsequent disability which sometimes follows intramuscular administration.

About fifteen per cent. of the patients in this series were salivated. They responded well to the following treatment:

All forms of food were withdrawn except milk. A preparation containing potassium bitartrate, two grams, sucrose, two grams, lactose, eight grams, and lemon juice fifteen c. c. in two hundred and forty c. c. of water was given every four hours alternating with two hundred and forty c. c. of milk which was also given every four hours. The patient thus received two hundred and forty c. c. of fluid every two hours in addition to a Murphy drip containing potassium acetate four grams to five hundred c. c. of water. A mouth wash of potassium chlorate was used frequently.

Much as we dislike to admit the fact we are forced to the conclusion that the American, English and French substitutes are less efficacious than the old salvarsan. Even under the combined intensive treatment many of our patients with a three plus Wassermann remain positive after twelve injections.

The greater our experience in the treatment of gonorrhoea and syphilis becomes the more we appreciate the necessity for persistent and prolonged therapy and the too prevalent custom of advising patients that recovery will result from a limited or specified number of injections is to be deprecated.

Unfortunately many discontinue treatment uncured thus continuing as prolific sources for the dissemination of these diseases. This dereliction is not confined to any one class for many of our private patients seemingly above the average in intelligence are guilty of similar negligence.

Many cases require hospital attention and it is to be hoped that the existing prejudice of these institutions against the admission of patients suffering from venereal diseases will in time be overcome.

THE OBSTETRICAL SITUATION IN FRANCE TODAY.*

By TITIAN COFFEY, M. D., Los Angeles, Cal.

The obstetrical situation in France today is one that is causing grave concern to those most interested in the rehabilitation of this devastated country. Politicians, social workers, the medical profession, the church, all realize that something must be done on a grand scale to replace the depleted vigor of the nation and to make up for the losses sustained in the past four years of this horrible war, to raise the fast falling birth rate, to decrease the frightful infant mortality, to overcome tuberculosis and venereal disease, to put a stop to abortion, to regulate prostitution. The problem is so vast and involves so many complicated side issues that one feels almost lost in attempting to grapple with it. Since the war of 1870 the birth rate of France has gradually decreased, so much so that the average birth rate of civilized nations being 31.3 per cent., in 1913 the French birth rate was 18.8 per cent. per 1,000 inhabitants, 40 per cent. below the average, and this even before the nation entered the great war.

A study of the statistics of the decade 1903 to 1913 shows a steadily decreasing birth rate for the

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city of Paris alone. Reports for 1903, showing the number of births to be 63,968, gradually decreasing, until in 1913 the number was 53,312. From then on for the next three years, on account of the war, the rate dropped 50 per cent., so the number of births in 1916 was just one-half that of 1913, or a total of 26,179.

What are the factors concerned in this remarkable situation and how may we account for the position in which France finds herself today? The low birth rate of France cannot rest upon economic factors alone, although this to my mind has an important bearing, but is made up of a number of complicated though recognizable problems, the whole being an intricate maze.

No. 1. The Marriage System.

To our way of thinking, it is a mistake to put marriage on a purely financial basis. The French are a remarkable people; love of country is the paramount idea based upon family life and ties. The love of family is highly developed, and when a man and woman enter upon matrimony it is in the form of a sort of partnership. The American idea is that marriage should be based upon a prime human affection; not so the French—this is supposed to be developed after marriage and the conjugal union, generally full of cordial feeling, reaches its intensity of prime affection by concentration on the relation of parents and children. The father is the head of the family or clan and not only controls the property, but directs its relations with other families, the mother having complete domestic authority. The youth of the nation are differently raised than ours, the girls especially having little or no social freedom until after marriage, hence the tendency to marry young and the fear of being "an old maid" if unmarried by twenty-five. Our idea of love enters practically not at all into the negotiations between families; that is supposed to come later, the young people may or may not have seen one another several times before marriage; it is all arranged for by the parents of the contracting parties.

The purpose of the dot or dowry is because the young people are starting a partnership for the purpose of founding a family. One would naturally suppose this means innumerable children; not at all, the element of finance works just the opposite way, for with each additional daughter a dot must be provided and this involves additional financial burden on the family as a whole.

Naturally and essentially frugal, the French idea is to save so that something may be laid by for old age and the daughters properly started in life. A large family prevents this, hence the usual limitation of two, occasionally three children. It is a rare thing to see a large family throughout France, except in the northern provinces about Calais, among the factory workers, where many of our refugees had eight to ten children. It is a well known fact that many authorities place the blame upon voluntary sterility, to avoid pecuniary charge of an infant. A committee appointed a number of years ago to investigate the decreased birth rate gave as one of the causes the following:

"The cause of the low birth rate in France is

not due to physiological incompetence, but to voluntary restriction of natural fecundation, either to reduce the expense of maintaining a family, or in response to egoistic and material considerations."

No. 2. Abortion.

Increasing criminal abortions have developed a serious social and medical problem that is causing great alarm and confronts France today. Abortions have been steadily increasing for the past twenty years, it being estimated from Paris hospital statistics that the number has trebled in the eight years preceding the last war. The actual number at present is, of course, unknown, but in 1917 Berthelény stated there were 50,000 abortions annually in the Department of the Seine. The birth rate of France in 1912 was 742,435 and competent authorities state there are about 500,000 abortions annually. When we realize these appalling figures nearly equal the birth rate, we see what a problem France is facing in this alone. A large percentage of pregnancies brought to full term and carefully raised through infancy would make an appreciable increase in the population in a few short years. This great loss of potential life makes the death rate from tuberculosis in France, about 2.25 per cent. per thousand, seem unimportant by comparison. In Paris alone in 1912 the still born numbered 4,220 and in 1913 the deaths from all causes during the first year of life was 4,842, so the number of still born is about equal to the total mortality for the first year of life. In 1912 there were 742,435 births and 34,695 still births, or about 1.22 per cent. There were 78,363 deaths of infants under one year of age during this year and 19,265 died during the first fourteen days. As deaths in this period are usually caused by some condition existing prior to or developing soon after delivery and may be unavoidable, essentially prenatal or obstetric deaths, if considered together, it gives us a total of 53,960 deaths to compare with a total first year mortality of 113,058, or 47.7 per cent., as still born or dying in the first two weeks of life.

No. 3. Venereal Disease.

Here is another important factor bearing upon the lowering birth rate and having its relation to abortions. Venereal diseases have, of course, increased during the war. Syphilis particularly is recognized by French physicians as a menace to the army and civilian population. Thibierge states that syphilis represents 16 per cent of venereal diseases and estimates between five and six thousand new cases developed monthly in the army and places the approximate total number of new cases from 1914 to 1917 at 200,000. Statistical study shows that 66 per cent of infant mortality during the early weeks of life is attributed to syphilis and only 28 per cent. of women with syphilis give birth to viable children. Thibierge points out that as syphilis in men becomes a cause of sterility for at least four years, and sometimes longer, this great increase in the disease will have a marked effect on the birth rate for a long time to come. He goes on to say as syphilitic soldiers are men of marrying age and some have recently married, arguing from his estimate of 200,000 new cases up to 1917,

each of these men will deprive France of one soldier and one mother in the decade 1935 to 1945. Two hundred thousand cases of syphilis mean 400,000 fewer births in France during the next ten years. There is no question but what the venereal problem equals, if it does not surpass, the tuberculosis problem.

No. 4. The Sage-Femme.

In rural districts 95 per cent of obstetrical cases are conducted by the Sage-Femme. There is an over abundance in numbers, and wages are low, and Bar of Paris estimates their earnings at one and one-half francs a day. They have, therefore, taken to committing abortions to eke out a living. There are about 12,500 Sage-Femmes in France and most of the cases in the cities are entrusted to them. They are trained by a university professor in the hospitals and given a course of two sessions of nine months each. The requisite for admission to the courses are a certificate of completed work in the secondary schools or an examination in arithmetic, geography, history and elementary science.

She conducts cases at the hospitals, at the patient's home, at private institutions, "Maison de l'Accouchement," under supervision of the hospitals, or at public institutions receiving financial aid from the department of charities, "Chez les Sage-Femme des Bureaux de Bienfaisance."

In the "Maison de l'Accouchement" conducted by midwives only normal cases are cared for, abnormal ones being sent to the public hospitals.

Many cases are cared for in the public maternity hospitals, especially uncomplicated ones, the Sage-Femme doing the nursing as well. Complicated cases are cared for by the *Medecin Chef* or Chief of Service, his associates or assistants.

The Sage-Femmes are only allowed to handle normal cases and may do a breech extraction or a version, but are not allowed to apply forceps.

No. 5. War Work.

Work in munitions factories was at first supposed to be one of the prime factors in the increase of abortion and still birth after the war started, but following a careful survey of the situation, the consensus of opinion was that only a relatively small proportion could be accounted for in this way and that probably the increase of syphilis was the most important underlying cause. The government adopted a set of resolutions introduced by the Academy of Medicine for the care and protection of pregnant munitions workers embracing forms of employment, hours of rest, medical consultation, good hygienic surroundings, opportunities to nurse their babies, to change employment, reduce or stop work when necessary and still receive compensation, restaurant facilities, together with nursing facilities. The government also arranges to give an allocation or financial support beginning four weeks before confinement and continuing four weeks after confinement, of a franc and a half a day.

There is undoubtedly a connection between the industrial employment of women and the relative scarcity of infants throughout France and was probably one of the contributing factors to the rapidly lowering birth rate the ten years preceding

the great war. Factory work undoubtedly favors the development of diseases like tuberculosis, which often means sterility in women, discourages marriage, favors immorality and thus spreads venereal disease and leads to the crime of abortion. During the years of the war absence of men at the front, great mental and physical strain, privations, poverty, lack of proper food, exposure, increasing disease of all kinds, flu, all these have their special bearing and ramifications, and must be taken into consideration when analyzing the remarkable and appalling diminishing birth rate of the past three years and accounts to a certain degree for the lack of pregnancies.

Very little is being done today in France, according to our idea in regard to prenatal care or the care of the baby and mother after confinement. The medical attention consists of the ordinary examination and advice given by the obstetrician at the "consultation" with only a cursory physical examination and routine urinalysis. Should the case present any abnormality, it is sent to the hospital for observation. Social relief work consists in referring needy cases to the *Mairie* or *l'Assistance Publique a Paris*. If especially needy, a widow, or unmarried, she may be admitted to the hospital, but usually is sent to a common institution or "Asile" for a temporary stay and then goes to a hospital for her confinement. If a woman is in financial distress, she is provided by the government with an allocation of 1 franc 50 per diem, which is paid for four weeks before confinement and for four weeks following confinement.

Prospective mothers are furnished with a pamphlet containing instruction and information regarding her condition and how to care for the baby following birth, but this is practically all that is done in an educational line and no follow up work is attempted.

No. 6. Natal Care.

This consists principally of medical attention and nursing, of the mother and the baby, during the confinement and puerperium. As mentioned above, this care is given by the Sage-Femme either at the patient's home, a home especially conducted by the Sage-Femme, or at public institutions. If the mother is too poor to pay for such service, by making application to the *Mairie* for assistance, she will be furnished with a Sage-Femme. As far as the actual delivery goes, the cases seem to be well cared for, but the hospital and nursing facilities are utterly inadequate for any high class work. In touring about France and visiting the various hospitals where maternity work was carried on, I was particularly struck by this great lack and medical need in the care of patients.

Institutions give free care to the very poor, and if payment is made at all by them it is usually from six to eight francs per day. The hospitals occasionally give the woman from ten to thirty francs upon leaving the institution and occasionally furnish the layette. The only educational work done is to instruct the mother a little in regard to the care of the baby.

No. 7. Postnatal Care.

Practically nothing is done for the mother and

the child except certain financial assistance. Food and clothing may be furnished if necessary. A nursing mother may receive an additional amount of food if deemed expedient. Throughout France are established Nourrison clinics beautifully equipped but do not do especially good work on account of the fact that no follow up work is done in the homes.

The system of using wet nurses and the ease with which children may be turned over to the government or church institutions seems to me particularly vicious. The various hospitals are supplied with accommodations for mothers to easily abandon their offspring. Attendants are on duty day and night in these isolated rooms and a young mother may bring her babe to the institution for abandonment up to seven months of age and no questions are asked. If the child is older, an attempt is made to get the mother to go on nursing and caring for it. The child is immediately put out to a wet nurse either in the city or country, who is paid a certain amount by the government for its care. Inspections are supposed to be made from time to time by government officials to note the progress of the infants, but as a matter of fact very little attention is paid to them. The infant mortality is high and it is difficult to make a comparison between birth and death rates, as a child born in Paris and let out to some district wet nurse, if it dies, will not be reported in Paris, but in the community in which the child last resided. The children, if they survive, are sent to the primary schools until about thirteen years of age.

The boys are then put out among the peasants to learn agriculture and the girls are put in an institution where they live a strictly institutional life, learning little or nothing of the ways of the world, and are taught practically nothing in regard to clothing themselves, the use of money, or household arts. Boys, upon completing their education, go into the army and the girls at twenty are given a dot of five hundred francs and turned loose upon the world. They are illy fitted for the great struggle and either fall by the wayside or return to the institution at which they were educated and become lost from the standpoint of future mothers for the nation.

One of the great needs of France today is a carefully planned and well carried out social service work in connection with the maternities to educate the women as to the needs and duties of motherhood, how to combat disease, how to care for themselves during pregnancy and especially the education of mothers after childbirth, and it is absolutely essential to institute follow-up work to control and observe the conditions of the infants and put a stop to the frightful ravages in the new life of France today.

No. 8. Suggestions as to Repopulation.

The authorities of France seem keenly alive to the gravity of the situation, but there is so much to be done in other lines that at present nothing very definite has been started. Last year, however, a national society was organized for the purpose of combating venereal disease, but more especially to develop and foster gymnastics, sports and athletic

games such as we have in America, among the youths of France. Their literature intimated some endeavors were to be made along the lines of repopulation and care of the infant, but as far as I could gather they are expecting to concentrate upon the growing boy rather than get at the root of the matter and beginning with the parents before the child is born.

The idea of the midwife or the Sage-Femme is so thoroughly inground in the French people that no physician dreams of eliminating them. It is absolutely necessary that their standards of education should be raised for there is no question their methods constitute a grave menace on account of unskilled deliveries, septicemia and abortions. Innumerable suggestions have been made by various authorities in regard to repopulation and various acts have come before the Chamber of Deputies. I quote a few:—

1. To grant the State the right to inherit uncharges in the case of families with four children.
2. To assure living accommodations for families with children.
3. To modify the tax of fathers and mothers with seven living children.
4. To provide allocations for functionaries and agents and institutions in charge of families.
5. To pension fathers and mothers of large families.
6. To encourage motherhood.
7. To sell railroad tickets at reduced rating to large families.
8. To bestow medals upon the heads of large families.
9. To facilitate the education of children in large families by obligating the State to meet such charges in the case of families with four children.
10. To provide medical faculties with sufficient funds to establish public institutions for the protection of the mother and the infants.
11. To pursue and punish abortionists.
12. To change the right of suffrage giving a plural vote to the father and to women and minor children in large families.

This gives a very brief outline of some of the means suggested for repopulating the country.

No. 9. Needs of France Today.

The great need of France today is the establishment of a governmental public health bureau having a minister in the cabinet and carrying on in every department of France an active and vigorous campaign along advanced educational lines. A very broad and comprehensive scheme was being worked out by Doctor Ramsey at Rouen and if his plan is generally adopted throughout France it will be of great value.

This embraces an up to date maternity service, full medical social service work, a campaign against venereal disease, tuberculosis, prostitution and epidemics, together with dairy inspection, food inspection, care of women workers in factories, inspection of school children, playgrounds, etc.

2. Advanced educational work along lines of prenatal, maternity and postnatal care with stress being laid upon medical follow-up work.
3. Change in the methods of handling ob-

stetrical cases, the development of training schools for nurses together with the adequate education and training of the Sage-Femme. At present many of them are a menace to the public good, others are a very high class of women.

4. Establishment of well equipped maternities throughout France which should carry on social service work in connection therewith, thus constituting centers of education.

5. A heavy concentration upon infant welfare work together with conservation of child life especially the new born and during the first few years of life.

PERFORATION IN GASTRIC AND DUODENAL ULCERS. CASE REPORTS.*

By J. H. O'CONNOR, M. D., San Francisco.

In a series of 26,000 admissions to the Southern Pacific General Hospital eight cases of perforating ulcers of the stomach and duodenum were encountered. In no case was the diagnosis made before admission. This is my reason for going rather minutely into the symptoms which lead to a correct diagnosis in these cases.

The chief symptoms in the order of their value are:

- 1st, Pain and tenderness.
- 2nd, Rigidity.
- 3rd, History of previous ulcer symptoms.
- 4th, Vomiting.

The pain is sudden and violent. It is described as "sharp, cutting, burning or stabbing." The important characteristic is that it is excruciating and unyielding. Its localization is mostly epigastric. Its quick radiation sometimes to the right iliac-fossa suggests acute appendicitis, but careful inquiry as to the early localization leads one on to the right track.

When the case is seen early, a careful and gentle palpation will lead to marked tenderness over the site of perforation.

Perforation of duodenal or gastric ulcer presents a more sudden and dramatic picture than does appendicitis. The general condition is more serious. The respirations are shallow, rapid and of the upper costal type—the patient trying to spare his abdomen as much as possible.

There is seldom fever with perforation at first, while this symptom usually accompanies appendicitis.

The second symptom of greatest value is the rigidity of the abdominal muscles. Its appearance is early and its increase always proportionate with the length of time following the onset of symptoms.

Daver says that there is no condition in the upper abdomen where rigidity is so early and marked as in perforated ulcer.

The board-like type is characteristic.

Usually a history of stomach trouble, lasting over a period of years, can be obtained in those cases; but some of the duodenal type, despite rigid cross-examination, persist in stating that previous

to the sudden attack of pain they have never had any symptoms of indigestion and never have had any abdominal distress.

The inability to obtain a history of indigestion in these duodenal cases has been of great disadvantage in diagnosing the case correctly, and usually leads to a diagnosis of acute appendicitis which is later discredited by the finding of a perforated duodenal ulcer.

Gastric ulcer cases generally give histories pointing to the possibility of ulcer recently, or some time previous to the perforation.

Vomiting is not a striking feature although it occurs in most cases at some period of the attack, usually the commencement. Frequently it gives slight relief to the agony at first, but later on it only increases the pain.

So much for the diagnosis.

As regards the prognosis: The mortality bears a pretty definite relation to the time that elapses between perforation and operation.

If the diagnosis is made and the operation performed within the first few hours the danger is relatively small. The mortality will probably not be in excess of five per cent. After twelve hours the prognosis is grave.

Technique of operation: Closure of the perforation with a layer of chromic cat gut, then a layer of linen and finally a layer of iodized cat gut, in which is incorporated the gastrocolic or gastrohepatic omentum.

Wiping out of the escaped gastric or duodenal contents with moist gauze pads (these contents will be found chiefly in the right side of the abdomen and in the pelvis).

Closure of the abdomen without drainage, except where the perforation cannot be satisfactorily closed.

It is not advisable to do a gastro-enterostomy as part of the surgical procedure in acute perforating ulcers. Reports of cases, which have been closely followed, seem to show that a spontaneous cure of the ulcer follows the closure of the perforation in the majority of cases. As the Mayos have said, "A perforated ulcer is a cured ulcer."

After treatment: Fowler position. Proclolysis three hours on and three hours off, using a four per cent. glucose and two per cent. soda bicarbonate in tap water. Nothing by mouth until peristalsis is re-established. No purgatives are given, but a cleansing enema is given on the third day after operation.

1.

Frank G. Age 62. Entered Hospital on October 25th, 1912, suffering from general peritonitis. History of chronic stomach trouble. Present attack began twenty-four hours previously, with pain in the Epigastrium, which gradually extended to lower abdomen. Did not vomit. Was extremely cyanotic. Pulse 160, weak and thready. Died afternoon of admission. Autopsy showed perforated gastric ulcer.

2.

R. J. J. Age 28. Entered Hospital January

* Read before San Francisco County Medical Society, May 14, 1918.

30th, 1913, suffering from general peritonitis. Patient too ill to give history. Obtained this information from friends that he was taken sick about 6 p. m. on January 28th. Incision was made over McBurney's point, a loop of ileum pulled out and opened. Patient died next morning. Autopsy showed the peritonitis was due to perforating ulcer of the duodenum.

3.

- D. A. G. Age 31. Entered Hospital on July 25th, 1915. Gave the following history: For the past three weeks noticed that about three hours after eating he would have dull pain in his Epigastrium. No gaseous or sour eructations. No nausea or vomiting. Has always been more or less constipated. Present attack began two hours before admission. Was taken suddenly ill with sharp, stabbing pain in the Epigastrium that caused him to collapse. States he could not get his breath, owing to the severity of the pain. Did not vomit.

Examination: Patient seemed very much prostrated. Respiration, short and grunting. Abdomen very rigid; more marked over upper part of right rectus, where tenderness was most acute. Diagnosis of perforating ulcer was made.

Operation revealed a perforating ulcer of the duodenum. Perforation sutured, abdomen closed without drainage. Convalescence was delayed by an attack of purulent bronchitis.

Time elapsing between perforation and operation, three hours.

4.

- John M. Age 23. Admitted to Hospital on April 15th, 1916. He stated he had no trouble with his stomach previous to April 9th, then began to have sharp pain in his Epigastrium. Does not know whether or not it had any reference to his meals. On April 13th he was suddenly seized with a severe cramping pain in his Epigastrium—vomited. The pain has been more or less continuous since that date.

Examination: Entire abdomen rigid and tender, most marked over the hypochondriac region. Diagnosis of perforating ulcer was made and operation performed. Perforating ulcer of duodenum was found. Abdomen closed without drainage. Recovery uneventful.

Time elapsing between perforation and operation, 36 hours.

5.

- H. H. Age 62. Admitted to Hospital June 12th, 1916. History of pain after eating for the past two years, with occasional vomiting. Present illness began two hours before admission, with a cramping

pain in the pit of the stomach; associated with nausea and vomiting.

Examination: Rigidity and tenderness over entire abdomen, most marked in the upper region. This patient was not seen by me until the morning of the 14th, when a diagnosis of perforating ulcer was made, perforating ulcer of duodenum was found, and operation performed. Cigarette drain placed between duodenum and liver—strip of gauze packed against suture line.

Between the time of admission and operation, patient was vomiting and complaining of severe spasmodic abdominal pain. Took nothing by mouth with exception of six ounces of solution of bicarbonate of soda. Was given one dose of Heroin, hypodermically 1-12 grain. Recovery was uneventful, with the exception of a purulent bronchitis, which developed during convalescence.

Time elapsing between perforation and operation, 38 hours.

6.

- B. H. R. Admitted to Hospital May 22nd, 1916. History of stomach trouble for one month, consisting of pain in upper part of his abdomen coming on about three-quarters of an hour after meals. No acid eructations. Yesterday was taken with a severe colic. A short time after its onset had a constant tight feeling over abdomen and a sense of suffocation from what he described as a pressure of gas upward. Vomited after taking aromatic spirits of ammonia.

Examination: Entire abdomen was distended, rigid and board-like. Peristalsis was absent. Some dullness in the right flank; general peritonitis present.

Operation revealed perforating ulcer of duodenum. Patient died next day.

Time elapsing between perforation and operation, 36 hours.

7.

- E. B. Age not given. Admitted to Hospital December 16th, 1916. History of pain at intervals in stomach for the last three months, coming on two or three hours after meals. On December 11th began to have pain just above the umbilicus. This has been constantly present since its onset and has gradually been getting worse. This morning (Dec. 16th) at 9:30 pain became much more acute. Did not vomit.

Examination: Upper abdomen very rigid and tender on pressure. Diagnosis of perforating ulcer was made and operation performed, which revealed perforating ulcer of stomach. Abdomen closed without drainage. Recovery uneventful.

Time between perforation and operation, 9½ hours.

8.

Jon. H. S. Age 57. Admitted to Hospital March 19th, 1917, at 1 a. m. No history of previous stomach trouble. Present illness began at 9 p. m. March 18th, with a severe sharp stabbing pain in Epigastrium. The pain has continued without relief.

Examination: Board-like rigidity over entire abdomen, more marked in Hypogastrium. Extreme tenderness on pressure over a point one inch above umbilicus in mid line. Diagnosis of perforating ulcer was made.

Operation, 10 a. m., March 19th, revealed perforating ulcer of duodenum. Perforation sutured. Abdomen closed without drain. Recovery uneventful.

Time elapsing between perforation and operation, 13 hours.

During the past few years I have operated on three other cases and assisted at operation on a fourth. All were operated upon within a few hours after perforation. Three were closed without drainage and made uneventful recoveries.

The fourth was drained with a cigarette drain between liver and duodenum, supplemented by narrow strip of gauze packed against the suture line. This was done on account of inability to securely close the perforation, the stitches cutting through an unusual amount of indurated tissue, which surrounded the perforation.

This man died suddenly one month after operation from pulmonary embolism. There was a discharging sinus present at the time.

Medical Building.

TREATMENT OF THE DIPHtheria CARRIER, WITH SPECIAL REFERENCE TO TONSILLECTOMY AND ADENOID-ECTOMY.

With Report of 12 Cases.

By FRANK E. DETLING, M. D., Los Angeles.

What to do with the diphtheria carrier is a problem, perplexing to doctors, health and hospital authorities, and most trying, inconvenient and expensive to patient.

The diphtheria carrier plays havoc with hospitals, especially institutions that limit their patients to children, frequently closing part or all of same, infecting and disorganizing the hospital forces, prolonged occupying of beds in the contagious departments, which are usually too limited even for ordinary requirements. The frequency of its unheralded appearance and general disturbance it plays, makes it customary to take throat cultures of all children as they enter children's wards, besides keeping them under observation for a limited time. In fact I know of no other factor that plays such ruin with hospital efficiency. The danger of exposure to cross infection in keeping children in contagious wards, is another complication of the diphtheria carrier. The prolonged quarantine of adults or occasionally of entire family frequently becomes a distressing economic ques-

tion. The oft-repeated question, "How much longer must I remain in quarantine?" becomes a burning problem to a patient otherwise well and whose only offense is that of being charged with having a positive diphtheria throat.

Hence, any treatment that will in any way shorten the quarantine period of these patients will always be welcome.

Writers differ somewhat as to the definition of the diphtheria carrier; some including only those cases that harbor the diphtheria bacilli in nose and throat, but who have no history of sore throat, or other symptoms of diphtheria, and who give a negative Shick test; others include those cases that harbor the diphtheria bacilli for a prolonged period after the clinical symptoms have disappeared. For our consideration we will accept the more comprehensive definition.

From various investigations, by reliable sources, it has been shown that from one to three per cent. of all persons harbor the diphtheria bacilli in their throats, and that this percentage runs considerably higher during epidemics of diphtheria. The virulency of these carriers seems to differ to a considerable degree, being quoted as varying from 20 to 80 per cent.

VARIOUS TREATMENTS.

I presume all of our antiseptic drugs have been tried in some form or manner for the cure of the diphtheria carrier, none having proven themselves entirely efficient. The most used antiseptics being iodine, phenol, silver nitrate, formaldehyde, alcohol, all tried in various strengths and in various manners. Kaolin, dried and finely powdered, has been favorably reported on by Dr. Hektoen and Rappaport; it has no antiseptic qualities, but its virtue apparently being due to its absorptive and mechanical powers.

The spraying of the throat with various non-pathogenic bacteria, such as the staphylococcus pyogenes aureus, bacillus Bulgaricus, lactic acid producing bacilli and others, has been advocated and tried, the expectant result being the overriding of the diphtheria bacilli. This treatment seemed for a while to have solved the problem and the results as a whole quite favorable, although there is a tendency for a return of the diphtheria bacilli if not repeatedly sprayed. Vaccine and serum have also been tried with varied success, but the advocates of the various kinds of treatment all admit the inefficiency and failure in a certain percentage of cases. What to do with the failures is the vexing problem. Authorities admit that in certain cases the infection gets down deep into the crypts of the tonsils or crevices of adenoids, occasionally in sinuses of the nose, and the removal of any of these pathological conditions is the general advice given, after the unsuccessful efforts of their favorite method of treatments.

REPORT OF CASES.

Case 1. Miss M., graduate nurse at Children's Hospital. Moderate attack of diphtheria. Was given antitoxin, throat treated with all forms of sprays, gargles and swabs. In quarantine for five weeks. Could not get a negative culture. Tonsils large and crypts filled with cheesy deposits. With the removal of tonsils there were no future positive throat cultures.

Case 2. Miss A., school teacher. Came to office complaining of sore throat. She was sent to Health Department for throat culture which proved positive. Was taken in charge by a general practitioner. Had a very mild attack. She was given various post diphtheretic treatments closely following the treatment suggested by the Health Department of Los Angeles. After four weeks of quarantine I was asked to see patient in regard to doing a tonsillectomy. Patient was very reluctant to give consent to any operative suggestions, as the tonsils were small and patient gave no history of any previous sore throat excepting that of her diphtheria attack. She was in quarantine at the Clark Memorial Home and her quarantine was much like that of solitary confinement, not the usual home quarantine. After another week's delay, the tonsils were removed and no further positive cultures were found.

Case 3. Mr. J. C., age 24, drug clerk. Moderate attack of diphtheria, all clinical symptoms disappearing in a few days. Repeated examinations for six weeks showed positive cultures. Perfectly well otherwise. Tonsils and adenoids moderate size. Negative culture on 2-4-10 day after operation.

Case 4. A. B., age 10 years. Moderate attack of diphtheria, usual treatment. In quarantine seven weeks. Large tonsils and adenoids. Negative culture on 4-6 days after operation.

Case 5. Family in which girl age seven had diphtheria, in which three others of family became true diphtheria carriers. Patient had fairly severe attack of diphtheria, clinical symptoms lasting six days. Positive culture two weeks. The question of having tonsils and adenoids removed having been debated previous to the diphtheria attack, it was decided to remove same although in less time than is customary to advocate the operative procedure. Throat gave a negative culture on the 4th and 6th days after operation. Before quarantine was raised, culture of throats of family was taken and showed that the mother and two other children had the diphtheria bacilli in throat, but no clinical symptoms were evident. All treatments suggested were conscientiously tried, mother being a trained nurse, and after one month of unsuccessful efforts, the tonsils and adenoids were removed in the three carriers, mother and two children, with no positive cultures after operation.

Case 6. Miss J., age 16, at isolation ward of L. A. County Hospital. In hospital six weeks, clinical symptoms only for a short time. In this case Fuller's earth was tried most conscientiously for ten days without result. She also had gargles, sprays and swabs. Was out of hospital in a week's time after operation.

Case 7. Mrs. A., age 30, at isolation ward of County Hospital. Sore throat for a few days. Culture positive. Given diphtheria antitoxin. In quarantine three weeks when tonsils were removed under local anesthetic. Operation February 8, 1918. Positive culture the 12-14 and 16th. Negative after the 18th of February, patient having shown positive culture for ten days after the operation.

Case 8. Miss G., age 24, at isolation ward of County Hospital. No clinical symptoms, but found to be a diphtheria carrier. She was one of nine cases that were taken to isolation ward from County Jail where they had been exposed to a case of diphtheria. In quarantine three weeks. Iodized phenol, hot saline gargle used. Operation February 8. This patient for twelve days following operation gave no two consecutive negative cultures, but did give a negative culture several times during the first twelve days, but not until after the twelfth day did we have a throat free of the diphtheria bacillus.

Case 9. Mrs. C., age 23, at isolation ward of County Hospital. Sore throat for several days. Positive diphtheria culture. Antitoxin, iodized phenol, hot saline gargles were given. Operation

February 8, 1918. No positive cultures after operation.

In the series of twelve cases, ten gave no further positive cultures after the removal of tonsils; remembering that all of them had been in quarantine from three to six weeks and various forms of treatment tried. Case 7 did not clear up for ten days after the operation. Case 8 did not give consecutive negative culture until twelve days after the operation, although the throat gave a negative report several days, but followed by a positive the next day.

CONCLUSIONS.

That the frequency of the diphtheria carrier renders it important in the interest of both patient and public health to rid patient of the diphtheria infection as soon as possible.

That antiseptics and biological products are as a rule effective in clearing the throat of diphtheria bacilli, but inefficient where the infection is due to some pathological condition in nose and throat.

No adverse or unusual results were noted following the operative method and none were found reported in literature, a certain immunity in all probability explaining why we do not have a greater reaction with the virulent bacilli in throat. The removal of the foci of infection is without doubt the important factor in clearing the throat of the diphtheria bacilli, although a second factor may play an important role, and that is the *non-pathogenic* bacteria normally in the throat, taking on a rapid growth due to the post-operative conditions, thus *overriding* the diphtheria bacilli.

That the diphtheria bacilli are usually found in pure culture in crypts of tonsils that have been removed from the carrier.

That no treatment yet advocated or tried has proved successful in all cases, but that the removal of the tonsils and adenoids gives the most satisfactory results.

That the operative method has had sufficient trial to give it a recognized standing with the assurance that it has the endorsement of many of the best health authorities.

That we can and should recommend operative procedures, especially in cases that show any pathological condition and that have failed under other treatment.

THE USE OF HOMATROPIN IN REFRACTION.

By PERCY SUMNER, M. D., San Francisco.

A number of years ago when I was in New York there was a paper read before The Academy of Medicine on the use of homatropin in refraction. As I was at that time a student in the office of the oculist who presented the paper I was naturally greatly interested in it, as I had had an opportunity of observing some of the conclusions on which the paper was based.

It amazed me to hear in the discussions that followed that several men seemed quite opposed to the use of homatropin or any other cycloplegic in refraction and contended that they got good results by giving the manifest correction, without the use of drops. As I was at that time fresh from Vienna, where the use of a cycloplegic in

refraction was then unknown, and where the results were pronounced very poor by a number of American oculists who had observed and practised refraction under cycloplegics both in England and America; it was naturally a great surprise to hear any doubt expressed on what I had learned to consider the only way to do a proper refraction.

Since that time a considerable experience in refraction myself has given me a perspective on the subject that compels me to side definitely and finally with the champions for a cycloplegic in refraction, in the majority of cases. I have found that there is altogether too much guesswork without a cycloplegic, and although at times one may get just as good results by manifest, yet in the greater number of cases the results are absolutely indifferent and wrong. And by results I mean the increased ability of the patient to use the eyes without any discomfort or annoyance.

Are the opticians and the oculists who use no cycloplegic right when they inform their patients that the introduction of "drops" in the eye for the correction of refractive errors is not necessary and sometimes harmful? Or are the oculists who insist in every case, irrespective of age or circumstances, justified in their stand that the only way to refract the eye is to paralyze the muscle of accommodation? In other words, we have on the one hand a number of advocates for refracting the eye "just as it is"; on the other, those who protest that a paralysis of the muscle of accommodation is necessary to obtain the proper degree of error of refraction. In the latter case, then, to be consistent, the muscle must be paralyzed before attempting refraction.

Does homatropin as ordinarily employed completely paralyze the muscle? Is there any one method preferable to another to attain the desired result?

My own observation has been that when properly administered homatropin will paralyze the muscle in at least eighty per cent. of the cases, but that there is a certain per cent. that are not paralyzed and will accommodate to a certain extent after the most careful preparation, and occasionally will exhibit an annoying spasm. In a few cases, too, with small error of refraction, the homatropin seems not to affect the muscle at all. And, which is very important, even after the most complete paralysis, in from twenty to thirty minutes after the last drop has been put in the muscle will again begin to work.

It is therefore essential that the refraction shall take place immediately after the last drop is put in, so that the period of absolute quiescence can be utilized, because if not there will often come on a transient spasm that interferes with the best results. Therefore, if one believes in the use of homatropin then it must be used properly and intelligently to get the result aimed at—complete paralysis of the muscle of accommodation.

The method of using homatropin recommended by Gould, Duane, and others, of a 2% solution is most satisfactory. The solution used should not be too old. One drop in each eye every ten minutes for seven drops, making a period of one

hour. But just as important is the disposition of the patient. The whole philosophy of the procedure is to relax, primarily the muscle of accommodation; secondarily, the patient, for a keyed up patient is difficult to manage.

1. Make the patient as comfortable as possible during the instillation.
2. Have the back of the patient to the light and the eyes facing a blank wall, so that there shall be absolutely no incentive for the muscle to work.
3. After one hour's interval, refract without any delay.

Some use cocaine in addition, one half of one per cent.:

Rx	Homatropin Hydrobromide	grains 10
	Cocaine Hydrochloride	grains 2½
	Aquae	ounce 1

M. Sig.

One drop in each eye every ten minutes for eight drops.

This is a published formula of one of Gould's pupils.

Homatropin is not suitable for young children and in some young adults who have spasms of accommodation. In these cases atropin 1% solution is used for at least two days to get complete paralysis.

No cycloplegic should be put into any eye for the purpose of refraction until the condition of the disc and the tension have been determined. For years it has been my invariable practice immediately after refraction to instil at least five drops of pilocarpine nitrate 1% solution in each eye, and then have the patient put it in hourly for two days. That this is necessary is indicated by the report, about a year ago, of some oculist who recited a number of cases of increased tension and discomfort in young adults after the use of homatropin in refraction. On the general system I have not noticed any untoward effect, though I have used it on people with chronic heart diseases, pregnant women, etc. Rarely, in a neurotic person there may be a slight nausea, without vomiting, but nothing further. We can say, therefore, that in properly selected cases, there is absolutely no danger; and the discomfort from the blurring can be greatly relieved by the use of a myotic after the refraction.

The garment industry in California has risen to importance in late years, with 75 per cent. of the workers women. With the passage of the minimum wage law, which provides for a period of learning for the workers who wish for advancement, it has been found necessary to open classes in power-machine stitching. These classes are under the supervision of the Federal Board for Vocational Education, and have been instituted in several factories. The women are taught a technical knowledge of the machine and are prepared for the next step in progress. Some of the classes are held at night and are proving satisfactory.—Vocational Summary.

Book Reviews

Text-Book of Biology. By W. M. Smallwood. Third Edition. 306 pages. Illustrated. Philadelphia and New York. 1918.

This book is a good synopsis of some of the

features of biology. It strikes me, however, that its usefulness is more in the way of a review than as a text-book—that is to say, a student knowing only a little of the subject under consideration would frequently be at sea in trying to use this as a text-book, as it presupposes too much knowledge. On the other hand, one who has a fair idea of the subject and who wishes to review it, will find that this book is a considerable aid. It is full of facts—there is much in a small space—the feature of the book that makes it less valuable to the student just beginning, makes it more valuable to the student wishing to review the subject.

A. L. F.

Whole Truth About Alcohol. By G. E. Flint. 294 pp. New York: Macmillan Company. 1919.

The whole truth about alcohol
When this said, it must be all—
And that is what we get in print
In a recent book by Mr. Flint.

Strongly condemning its abuse,
Strongly affirming its proper use,
He shows that the prohi's have lied
By "half truths" greatly amplified.

He twists the things they have to say
About, in just the neatest way;
So showing when the whole truth's told:
Their propaganda will not hold.

Although his statements most, are true,
The work this book was meant to do
Will never be achieved, I fear,
'Cause prohibition now is here.

A. L. F.

Medical Clinics of North America. Volume 2, Number 4 (January, 1919). Octavo 303 pp. Illustrated. Published bi-monthly. Philadelphia and London: W. B. Saunders Company. 1919. Price per year, \$10.00.

S. W. Bandler: Sterility in women. Walter Timme: New pluriglandular compensatory syndrome. W. W. Palmer: Pneumococcus endocarditis. T. S. Hart: Mitral stenosis and auricular fibrillation. A. R. Lamb: Non-hemolytic streptococcus endocarditis. Leo Buerger: Cystitis. H. R. Geyelin: Certain aspects of modern treatment of diabetes mellitus. J. G. M. Bullowa: Local evidence of tonsil involvement in causation of distant or systemic disease. Influenza of head and chest. W. H. Sheldon: Hospital as health unit. A. S. Blumgarten: Primary malignant tumor of lung. Cerebrospinal syphilis. Nephritis. Aortic syphilis. A. McI. Strong: Auricular tachycardia in children. D. W. Atchley: Renal disease. E. F. DuBois: Basal metabolism as a guide in diagnosis and treatment of thyroid disease. Willy Meyer: Advanced pulmonary tuberculosis.

Medical Clinics of North America. Volume 2, Number 5 (March 1919). Published bi-monthly. Philadelphia and London: W. B. Saunders Company. 1919. Price per year, \$10.00.

H. A. Christian: Cutaneous pigmentation, jaundice, palpable liver and spleen, and ascites. Fibrinous bronchitis. J. L. Morse: Infantile scurvy. W. P. Graves: Cancer of uterine body as borderline case in gynecology. C. J. White: Some common errors in diagnosis and treatment. F. B. Talbot: Relation of diet to development of children with special reference to the teeth. Channing Frothingham: Aortic aneurysm. G. R. Minot: Banti's disease. Banti's disease mistaken for peptic ulcer. Myelogenous leukemia with low white count. Typical chronic myelogenous leukemia. J. B. Hawes: Tuberculosis and influenza. F. T. Lord: Pulmonary destructive lesion. H. Lilienthal: Relation of clinician to industrial medicine. L. W. Hill: Nephritis in children. F. W. White: Improvement in medical treatment of chronic ulcer of

bibliography is splendid. A study of this work stomach and duodenum. J. P. O'Hare: Chronic nephritis with edema. F. W. Peabody: Some lessons of war in field of cardiac disease. G. C. Shattuck: Chronic pulmonary tuberculosis and arteriosclerosis. War nephritis and chronic adhesive mediastino-pericarditis probable. Syphilis, lesion of aortic arch, probably syphilitic; healed ulcer of stomach or duodenum. A. W. George and R. D. Leonard: Use of X-ray in study of multiple diverticulitis of colon. M. J. Rosenau: Some fallacies in diagnosis of "ptomain poisoning."

Reconstruction Therapy. By Wm. R. Dunton. 229 pp. Illustrated. Philadelphia: W. B. Saunders Company. 1919.

This book treats of occupational therapy, of work applied as a curative measure rather than as a means to the economic rehabilitation of the disabled. The author is a psychiatrist and has evidently gained his experience from hospitals for the insane. The results of his observations are laid down in the first nine chapters, which include information of considerable value to those interested. They treat of the duties of the director of occupational therapy, his relation to the nursing staff, the training of nurses and their selection from the occupational viewpoint, and the financial and administrative aspects of occupational therapy. The orthopedic side of reconstruction is superficially dealt with. What there is in the book on curative work, especially as an aid to the physical rehabilitation of stiff and wounded limbs, the rehabilitation of the amputated, and the consideration of prosthetic appliances, seems to have been gotten from the writings of others. The book would be improved if the later chapters were omitted and only those on occupational therapy in psychopathic hospitals retained. There is a useful bibliography at the end of the work. L. E.

The Blind. By Harry Best. 740 pp. N. Y.: Macmillan Co. 1919.

This is the most comprehensive treatise on the condition of the blind in society and the various provisions made for them by society which has yet been published. The condition of the blind in its many different aspects is set forth in careful detail. All measures ever adopted for their welfare are considered—the history of their origin and the practicable aspects of their use, provision for the education of blind children, for the intellectual benefit of the adult, and for their material welfare, are discussed at length. While the work done in our country is fully described, illuminating and through compensation laws, are detailed, with

This book is complete, is full of essential information and covers the field from A to Z. The many illustrative cases.

comparisons with the work of other countries abound. Full chapters are devoted to systems of pension and indemnification for loss of sight, with the laws governing the provision of these; a great number of decisions in actions against corporations acting as employers, and in corporations other than employer, are cited; principles of insurance as applied to benefits for injuries to the eyes, through private companies by local systems of indemnities will repay any one interested in the blind and their life. H. B.

Correspondence

INJUSTICE TO A STATE SOCIETY MEMBER

In looking through the annual report of the California State Board of Medical Examiners I find on a front page where the certificate of Dr. George Henry Richardson had been revoked on March 20, 1919.

During the last few months I have been bothered repeatedly by collectors concerning the unpaid accounts of a person by this name, also

have received telephone calls and letters which belonged to him. While I am fully able, personally, to answer and take care of any difficulties that might arise from the similarity of our names I do feel that the organizations that I represent, for instance, the Red Cross, should not be compelled to suffer for having my name placed before the public in such a way as to reflect discredit upon their organization. Will you kindly make some public statement in your journal so that this confusion of names might be generally understood?

As you know I am a graduate of the University of Pennsylvania, Class 1891, and have in no way ever been connected with the practice of Chiropraxy or any other form of irregular medical practice.

Kindly use your own judgment in this matter as you think the case demands.

Very sincerely yours,

G. H. RICHARDSON.

Flood Building, San Francisco.

From Our A. M. A. Delegates

PERSONAL IMPRESSIONS OF THE A. M. A. MEETING.

By DR. A. B. SPALDING.

To the Editor:—I regret exceedingly that a lack of newspaper training makes it impossible for me to send you a suitable presentation of personal impressions of the recent meeting of the American Medical Association. Amongst the very crowded conditions that existed on the train and in the hotels one was struck with the universal good nature of the medical man and the willingness of the individual to make way for the more impatient. It would seem that by experience and training the doctor is a good traveler, comfortable in the assurance of reserved quarters and anxious to be the first to extend courtesy to some forgotten acquaintance or to some future helpful friend. The surprise meetings of long separated college friends, of sudden introductions to men pre-eminent in the medical world and in the recent world's war gave the meeting at Atlantic City much of the charm of a commencement day reunion. The exhibits were very well arranged and well attended. The medical part was smaller than the commercial, but both were interesting because of the graphic presentations and the instructive attentions given by the personal attendants. It was a little unfortunate that the unique and really wonderful exhibit of the Public Health Service was not more centrally placed. The business part of the meeting passed off with such smoothness, that one could not help but admire the well oiled machine and to recollect that not always does the busy honey bee eat the honey. It is apparent that State organizations and special societies must know in advance what they want and to lay plans carefully to have their desires accomplished. The scientific meetings were held in widely separate parts of the city, making it very hard to visit more than one section on a given day. The programs were too long and began at nine A. M. to continue until finished. The result was that the unfortunate author who came fourth on the program had a small audience, because the largest part of the session was busy discussing affairs over the lunch table. A second common and unfortunate oversight was the lack of efficient lantern slide service. Poor screens for the pictures and hot lamps which destroyed many good slides were of too frequent occurrence. The social side of the meeting was very successful and most enjoyable. The hotels were crowded with noted foreign guests as well as eminent physicians and surgeons from our own country. Uniforms and decorations were plentiful and one was often at a loss on being introduced whether to use the title of general or of doctor to the well-known, simple man-

nered gentleman grasping your hand in fraternal greeting. These are a few of the impressions of the Victory meeting. There is no doubt as to the success of the meeting, and the large attendance from California was matter of frequent favorable comment. Especially as we paid the S. P. full fare each way.

Sincerely,
ALFRED BAKER SPALDING,
Delegate from California State
Medical Society.

San Francisco, July 5, 1919.

FROM DR. V. G. VECKI.

July 7, 1919.

To the Editor:

You ask for a short personal impression of the annual, the victory meeting of the American Medical Association held at Atlantic City June 9th to 13th last. Being in the habit of telling the plain truth whenever asked, without any regard to consequences, I must confess that I was somewhat disappointed.

When going to a meeting that was justly called the victory meeting I expected a great deal of joy and enthusiasm, but there I found the quietest, the most mirthless meeting of the many I ever attended.

After the eagerness to help in the great struggle demonstrated last year at Chicago, after having taken such prominent part in the glorious demonstration that the United States have to fear no one, it seemed as if there was no more ardor left. The opening meeting, the special victory meeting, also the sessions of the house of delegates were characterized by an almost mechanical going through it. There were hardly any social functions to speak of, an absolute absence of the customary sociability, and a general lack of enthusiasm.

As to the reason, I can only guess: are we getting blasé? Did the exorbitant prices in the profiteering atmosphere put a damper upon everything outside of the scientific work of the sections? or was it the sinister shadow of the impending calamity called national prohibition?

Very truly yours,

V. G. VECKI, M. D.,

Delegate to A. M. A. from California State Society of Medicine

San Francisco.

P. S.—Our third delegate was Dr. C. Van Zwalenburg of Riverside, who had just retired as president of the California State Medical Society. Dr. Van Zwalenburg's late return to California has prevented receipt of his personal impressions of the A. M. A. meeting.

THE LAMP OF SCIENCE.

Let History relax her frown
And shed
Instead
A silent tear,
When she relates
The horrid fates
Of Nero, John, or Robespierre.
These men were cruel; they approached
The brink,
I think,
Of horror; but
Their father's sin
Was greater in
Not having had their tonsils cut.
It will be found the snores of each
At night,
When quite
A lad, annoyed.
What chance had they.
The better way
Denied them by an adenoid?

Correspondence

STRAIGHT FROM THE SHOULDER.

To the Editor:

With reference to the communication from the Los Angeles doctor who states that "not one doctor in ten reads the State Medical Journal," it would be interesting to know the basis upon which the doctor makes such a statement. The Journal belongs to the doctors of the State of California, and, if they do not read it and do not send in communications with reference to its policy, it is the fault of the doctors and not the men who have charge of the Journal.

It is generally conceded that the California State Journal of Medicine is one of the best of any state society in the United States and it has stood for higher medical ethics than most any other journal that can be mentioned. If any statement is made in the Journal that should be challenged, it is up to the medical profession of the state to send in their objections, and this is what the editor and those who have to do with the policy of the Journal are continually striving for—that is, to receive communications so that they may know the desire of the doctors with reference to policy and things that would be of interest to the profession at large.

It is usually those who do the least that criticize the most, and it might be well to know how much the gentleman who sends in this criticism has done for the advancement of the Journal. There is no objection to criticism at any time, provided it is a just criticism, as only in this way can the Journal be improved, and if the gentleman in question will send in any ideas or suggestions for the improvement of the Journal, or anything that will make more people read it, his criticism will be gladly received and followed.

Very truly,

G. G. MOSELEY.

San Francisco, July 2, 1919.

Immunity

The Journal will express no opinion of and assume no responsibility for the views of "Immunity" correspondents. They must win or lose on their own merits by abounding in their own wisdom, and each reader must appraise each communication for what it is worth and take it for better or worse.

Communications will not be signed when published, but the author must be known to the editor. Send on your complaints, your kicks, your knocks, your boosts. We want constructive and destructive criticism. Air your pet hobbies. You are not limited to your own town or the medical profession.

EXCERPT FROM A HOT ONE.

June 12, 1919.

To the Editor:

I have the June copy of the Journal. What a bunch of crooks! I hesitate to comment further, on paper, except to say that one of the group seems to be suffering from amentia! I doubt if the cause of the Society will be helped thereby. Dr. Kiger's picture looks so very like Mr. Morrow that I wonder if a mistake has not been made.

Very truly,

County.

INTERESTING, IF TRUE

July 2, 1919.

To the Editor:

I think Dr. Eloesser's fellow medicos will enjoy the following clipping from the San Francisco Bulletin of June 30:

"Major Leo Eloesser, in charge of dentistry at Letterman Hospital, told the assembled tooth carpenters of California, in session here last week, how he took a rib from a wounded soldier and made from it a perfectly good jawbone. The major is no pioneer in the movement. A similar operation was performed in Eden some 5927 years ago and the jawbone has been working successfully ever since."

Very truly yours,
San Francisco.

A. B. C.

PUTS R. A. C. ON THE RACK.

To the Editor:

Although the reckless impeachment of our profession by R. A. C. who states in the Immunity Column of the July issue of The Journal that not one doctor in ten reads the State Medical Journal, will not be taken seriously by any doctor in the state, yet the fact that some lay readers of The Journal might be misled compels me to challenge this mendacious statement.

R. A. C. may have been attempting to perpetrate a practical joke, and the initials, for ought I know, may stand for "Rural Asinine Camouflage." Gauged by his expressions, that would seem to be the most appropriate and charitable interpretation.

Merely to confirm what I already knew, I interviewed a considerable number of doctors in the territory from which R. A. C. purports to hail. I asked each of them, "Do you read our Medical Journal?" Some of them asked me what was the joke, and others inquired if I were paying an election bet and had to go around asking foolish questions on obvious subjects. When I informed them the purpose of my inquiry they answered categorically and without exception that they read the Journal religiously. Some of them had the Journals bound, and the way they were pencil marked and dogeared showed how frequently they were consulted.

I also asked each doctor, "Do you know any doctor who receives The Journal and whose interest in medical subjects is so atrophied that he refuses to read?" The composite reply to this was that they considered it a wanton waste of time to worry over the habits of fossils. That the ambitious doctors, who were coming or who had already arrived, regularly used The Journal to recharge their batteries of information, and that the negligent were a negligible handful.

The apparent trouble with R. A. C. is that he multiplied himself instead of using the minus sign. He didn't stop to investigate, he didn't stop to think, but he stopped thinking. Cerebrate, my friend, cerebrate, and you will find that our Journal is not only bearing fruit, but sowing seed. That some of the fruit is not picked and that some of the seed falls on barren ground is only what betides the best directed aims and actions that make up "the infinite pathos of human life."

C. J. E.

Los Angeles, July 9, 1919.

County Societies

HUMBOLDT COUNTY.

The Humboldt County Medical Society held its regular yearly meeting for election of officers, May 15th, 1919: President, Dr. J. F. Walsh, Eureka; vice-president, Dr. C. C. Cottrell, Scotia; treasurer, Dr. J. A. Lane, Eureka; secretary, Dr. L. A. Wing, Eureka; delegate, Dr. Harold Gross, Eureka; alternate, Dr. Horel, Arcata. There was a good meeting while at dinner, that seeming to be the best hour to get together. An excellent report was made by Dr. Louis Dorais in regards to getting busy about Bill No. 933, to see if some power could be brought about to induce the Governor to veto this bill. Committees were appointed to work to this end and will get into immediate action.

Several of the members, Drs. Brunner, C. C. Falk, E. C. Cottrell, have returned from the service.

LOS ANGELES COUNTY.

Los Angeles County Medical Society, June 5, 8:15, in the Arrow Theater, Hamburger building.

The president, Dr. W. T. McArthur, opened the meeting by saying that in the time of Moses the diseased were exhibited in the market place so that passers-by could see the afflicted and their cure. Our former president, Colonel Dudley Fulton, who was in charge of a base hospital at the beginning of the war, had like opportunities for study.

Dr. Dudley Fulton, on "Clinical Experiences and Observations at United States Army Base Hospital, Camp Lewis," spoke of the standardization of hospitals at the outbreak of the war, when the country was unprepared by lack of supplies and organization. He mentioned how these hospitals became effective in a short time because of the system of hospital standardization.

He spoke of the prophylaxis of contagious diseases in a hospital of a thousand beds, and of cross infection. The same ambulance used to carry three and four different diseases at one time, while now they must be all of one kind. Face masks are worn and doctors and nurses sterilize in the isolation wards. Aseptic technique has reduced cross infection to the minimum. In 1917 there were 7308 cases; in 1918, 29,653 cases; out-patients, 200 a day—100,000 in all. There were 15,000 contagious cases; 142,000 cases went through Camp Lewis. Out of 79 cases of meningitis, there was a mortality of 29 per cent. Major Herrick first published that many cases considered meningitis are primary septicemia. Three cases of spotted fever died within four hours of entry and two cases within six hours. In three to four hundred deaths an autopsy was made in every case.

Dr. Fulton advocated the use of serum (85 c.c.) meningococcus vaccine polyvalent intravenously. There are two or three strains for which there is no prophylactic serum recognized. The various makes of serum differ in potency. The agglutination test should be used in every case. Measles we have learned to respect. There were 1056 true measles cases, mostly country boys. The city boy acquires immunity. There were no deaths from the uncomplicated cases. Koplik spots were present in 99 per cent. of all cases diagnosed in the pre-eruptive stage, when measles is contagious. Most of the cases do well indoors, whereas pneumonia does well outdoors. Otitis media and mastoiditis must be looked after. There are the same number of complications in scarlet fever, which is often most difficult to diagnose because of accidental rashes. More diagnostic than the strawberry tongue is a pulse of 100 to 130. Nephritis occurs in few cases, while abroad it is a most common complication. Mortality is from 7 to 8 per cent. In civil practice it was thought desquamation to be the contagious period. Not so now. In a positive case of diphtheria give 8

to 10,000 units of serum, but a large dose of 25,000 as an initial dose is best. The Schick test is studied to determine immunity; when positive it shows susceptibility; most of the cases gave a positive Schick. Throat cultures of angina sore throat were considered diphtheria the first twenty-four hours. The laboratory test is supportive evidence. There were 3789 cases of mumps in seven months, seven cases of pancreatitis; 75 per cent. of the cases had epididymitis, then secondary orchitis. These cases were kept warm in bed. It matters not so much whether or not a whole lobe is involved, but whether it is due to the pneumococcus or streptococcus, etc. Think of it in bacteriological terms, rather than anatomical ones. Out of 8000 flu cases, 200 developed pneumonia.

It is hard to tell where bronchitis leaves off and pneumonia begins. The roentgenologist helps us diagnose. The treatment is prophylactic by means of vaccines—strychnine and camphor are of no value; caffeine has some effect. Fresh air and sedatives are given for sleep; heroin or opiates do more than any other measure. Digitalis in small doses is good in some cases. In right heart dilatation bleeding gives results. In pneumonia the patient is overstimulated by toxins; stimulation treatment is not indicated.

The Secretary, Dr. Shoemaker, spoke on the rebate of yearly dues to out-of-town members. This was discussed by Dr. Duffield of Los Angeles and Dr. Black of Pasadena, and vigorously opposed by the Long Beach doctors and others. The Pomona and Santa Monica branches were in favor of the change in rebate. It was said that the Exchange exists for the work of the whole society and not for that of the city alone. Eighty-four were in favor of the amendment and eight of Long Beach against it, but graciously submitted to the majority with this result.

The following amendment was adopted:

"Article IX.

"Par. 2, Sec. 1. Further provided that members of the Association not having offices in the city of Los Angeles and who reside outside the limits of the city of Los Angeles shall receive a refunder of \$5 on the aforesaid dues; said refunder to be paid into the treasury of the Branch organization within whose geographical limits his residence is established, where such Branch organization exists."

Mr. Celestine Sullivan of San Francisco, of the "League for the Conservation of Public Health," said that he makes his appeal to the largest county medical society in the State of California by speaking before the Los Angeles County Medical Association; that the professional men are leagued together to serve the public. Health is a community interest. Disease prevention is more important than fire prevention. A wider experience and a new vision has come out of the war. The loss of life will soon be replaced by the improvement in public health. Countless agencies are engaged in this work. We believe in applying a pound of prevention instead of a ton of tonic. Twenty-six cults practice here. You have seen the sinister influence of these cults. The League means that men have united to defend the principle of constructive legislation. It can do so because it is organized. Co-operation is asked of you by the League organization. Every ethical doctor should be interested. A new medical practice act should be enacted with special favors to none. The interests of the profession and that of the public are identical. Every one should come into the League.

President McArthur announced that every one should give according to his means.

The Secretary, Dr. Shoemaker, was kept busy marking down the sums, beginning with Dr. McArthur and followed by Drs. Beckett, Brem and Fulton, each for \$200. Then came Drs. Sherk,

Lobingier Frick, MacGowan, Clarence Moore, Percy White, L. M. Moore, Wm. A. Edwards, Anton, Duffield, California Hospital, Pallette, T. C. Myers, Newton, Avery and Kress, each for \$100. Drs. Zeiler, White Memorial Hospital, Milbank Johnson, Black, Brainard, Kiger, Shoemaker, Lazard, P. R. McArthur, Van Kaathoven, Rogers, Browning, Scott, Day, Harvey McNeil, each for \$50. Drs. Chaffin, Downs, Taylor, Crum, E. M. Wilton, Hastreiter, Allen, McKinney, L. M. Breed, Noskin, Stanfield, Chesbery, Brennan, Lillian Ray, McCann, Thomason, Burton, Hill, Cook, Stephen, C. M. Mattison, Wilburn Smith, J. M. Roberts, L. M. Seymour, Tewley, M. C. Wilson, A. D. Gallant, Crane, Scott, Karl Smith, Newton, Charlotte Brown and Merriam, each \$25.

Others since have helped to raise the sum of contributions from Los Angeles city alone to \$5000.

June 19, second monthly meeting of the Los Angeles County Medical Association, held at the Arrow Theater of the Hamburger building, at 8:15 p. m., with Dr. Wm. T. McArthur, the President, in the chair. On extending the society's thanks to the subscribers for their contributions to the League for the Conservation of Public Health, he said that the sum total was a surprise, and part of it may serve as a reserve fund. He also read a telegram of congratulation by Dr. J. N. Travers for the splendid interest shown here.

In introducing the first speaker, the President said that things have developed during the war and our pathologist has made a careful study of hyperthyroidism. Under the head of "Hyperthyroidism as the Cause of the ('Effort Syndrome') in Soldiers," Walter V. Brem, M. D., began by saying that it is not only of military importance, but that the subject is also one of the medical problems of civil life.

Da Costa wrote about "the irritable heart of soldiers." Lewis was the first to observe it in men returned from the front. The strain from mild conditions affecting the nervous and circulatory systems has been called "neuro-circulatory asthenia," which is a poor name. "Exhaustion syndrome" was another name in literature. In Camp Kearny he came to the conclusion that it was hyperthyroidism. We were tardy, he said, in appreciating the syndrome. Camp Fremont Hospital was full of these cases in all the different wards. In the tuberculosis ward about one-half of the patients had this syndrome. In the cardiac-vascular ward there was no definite diagnosis in many cases, except that these patients had tachycardia and a systolic bruit. In the general medical ward some patients vomited without a sufficient cause: the symptoms of the gastro-intestinal tract being negative. There was no definite history of ulcer or pain, but only a fast pulse and neurasthenia. In the pneumonia ward the patient would complain and later return with the old complaint. In the psychopathic ward, cases of emotional instability and epilepsy or syncopal attacks, and even the actually insane had the syndrome under consideration. The condition may have been precipitated by the insanity. In anuresis the syndrome was present: patients recovering slowly from an operation suffered from the same condition. The X-ray showed no pathological changes so that it was unwise to operate on them. In the orthopedic ward some cases would not get over the pain in the spine; weakness of the legs was not an infrequent symptom. We had many discussions and some called it "Brem's disease," i. e., hyperthyroidism, although Dr. Brem claimed no originality in his studies. The exciting cause he thought is some physical strain, emotional strain or maladjustment to environment. During pneumonia, patients developed tremor tachycardia and exophthalmic goiter. The cardinal symptoms were restlessness, palpitation, pain over the precordia, nervousness, and other common signs were slight

enlargement of the thyroid, Graef's sign and Stellwag's sign. Tachycardia, hyperthyroid thump, a systolic thrill at the apex and also at the base of the heart, tremor of fingers, sweating of palms and the axillas and cyanosis under the toe and finger nails are other symptoms and signs. The eye signs are variable. There was a controversy about the cause. Dr. Brem takes issue with objection that there is no goiter associated with this condition. There is no definite criterion as to what enlargement of the thyroid is. Dodd's article in Osler quotes Murray that slight enlargement exists when gland can be felt; moderate when the enlargement can be seen as well as felt; considerable when obvious. The speaker gave his own classification in first, slightly enlarged; second, moderately enlarged; third, markedly enlarged. In young soldiers the isthmus is slightly enlarged and more easily felt. To judge the size requires experience and discrimination, but the speaker thinks that is not important, and Mayo says that it is not an important matter. The gland at autopsy may weigh three times the normal. It is not an essential condition and may be a late one. Exophthalmos and goiter may be absent; there may be small goiters that are more active and early cases are not diagnosed; possibly all cases of tachycardia and extreme nervousness belong to this class. There may be a faltering in internal accretion, and the nervous disturbance may be the cardinal symptom. The earliest constant symptoms to appear are tachycardia, sweats, headaches, having no relation to enlargement of thyroid or exophthalmos. It is usually cases and not a criterion that have to be dealt with. Size is not parallel with the quantity of the thyroid gland's secretion. We may think of secretion in different cases as ranging from normal to abnormal. There are, say, 20 per cent. above the base line and 20 per cent. below; 5 per cent. at the upper limit or 5 per cent. below. The 5 per cent. would not show enlargement. Basedow's disease cases are possibly recruited from the zones of over-secretion without enlargement of gland. The objection that hyperthyroidism exists in these cases because exophthalmos is not frequent has nothing to do with it, although there may be a slight degree in some cases. One patient had the disease for three months before the enlargement came. Exophthalmos is late in its appearance, says Brooks of New York, if the patient showed but a slight degree of it. Another objection was the pulse. When at rest the pulse subsides, while the exophthalmos remains fixed. There is high blood pressure in exophthalmos. The vaso-metabolism is increased. Injection of adrenalin increases blood pressure. The speaker described the adrenalin test, saying the patient is put to bed for twenty-four hours, the blood pressure taken, then $\frac{1}{2}$ cc of 1 to 1000 adrenalin solution injected under thyroid region and the blood pressure taken again and again for an hour. This test was applied in a patient having a fever of $99\frac{1}{2}$ degrees all the time while under observation for tuberculosis. The test was also used in forty who had no tuberculosis, but had hyperthyroidism according to the reaction of adrenalin. Twenty-five per cent. of them had no active tuberculosis. The condition must be watched for in tuberculosis. The emotional state and physical exertion cause a disturbance in the secretion of the thyroid.

Discussion.

Dr. Schneider complimented Dr. Brem as a keen observer, but thought that hyperthyroidism is an acute disease and does not occur chronically, according to his nine years' experience in this special line with the Mayo Brothers. In all acute affections the thyroid is somewhat enlarged, but in hyperthyroidism the skin is always hot, not clammy, nor is there sweating of hands and the axillae. Among other things he said that besides

an enlarged thyroid and tachycardia, there is an increased metabolism.

Dr. Fisher said that as a neuro-psychiatrist he saw many of the cases described by Dr. Brem, who had given a clear cut of the disease. It comes on for months; there is tremor so that the patient cannot write well; there is cyanosis, a systolic thrill, a pulse beat of 100 to 250, and mental irritability. The patients come from neuro-rasthenic families; they are not stable individuals.

Dr. Cook was impressed that Dr. Brem has drawn a good picture. The nomenclature is unfortunate. He knew of cases having had excessive perspiration of axillæ. Palpability of goiter may be absent and the toxic cases were not capable of enlargement.

Dr. Burley spoke of epidemic goiter and said 50 per cent. of the troops from the State of Washington presented an enlargement of the thyroid gland. There was 120 per cent. of blood pressure on rest, a vaso-metabolism, increased secretion of thyroid.

Dr. Brem concluded by mentioning that Sir James Mackenzie admitted that the cases were identical; that the coccygeal gland may be the cause of it. The explanation is found in the thyroid gland.

President McArthur introduced Dr. Thomas Chalmers Myers, saying that we never had a report from the Italian front, where hard conditions were faced on account of the mountains, and that Dr. Myers was decorated for bravery under fire.

"Surgical Service on the Italian Front" was the title of the doctor's remarks.

Harbor Branch.

The regular monthly meeting of the Harbor Branch, was held at Mignon's Eat Shop Friday evening, June 27, 1919. Dinner at 7:15, program at 8:15.

Program: "Necessary Organizations for the Conservation of Public Health," J. L. Pomeroy, M.D., Los Angeles County Health Officer; "Importance of Health Inspection of Schools," S. James Miller, M.D.; G. H. Galbraith, M.D., President; J. Stanford Gwaltney, M.D., Vice-President; Frank M. Mikels, M.D., Secretary-Treasurer.

Pomona Branch.

Pomona Valley Hospital program, June 10: "Effort Syndrome, the Irritable Heart," Donald Frick, M.D.; "Recent League Activities," Harlan Shoemaker, M.D.; "Objects of League," Walter V. Brem, M.D.

Personals.

Dr. L. Lore Riggen has recently received promotion to the rank of lieutenant-colonel. He has been detached from the Base Hospital No. 70 and assigned a position as head of the Medical Department in the A. E. F. University at Beaune, France.

Dr. Chas. A. Shepard, who has been stationed at Prescott, Ariz., for some time and has been chief of the Medical Service there since March 1, has recently been granted the rank of major.

Dr. John P. Gilmer has recently been detached from the U. S. S. Mount Vernon and been made senior medical on the U. S. S. Proteus, running between England and Brest, France.

Dr. W. H. Butcher of Glendale, who is in the service of the National Red Cross, left for San Francisco, where he will sail for Siberia to take charge of a hospital established there by the Government. He will be absent three years, and has purchased a home here, where his wife and two sons will reside during his absence.

Dr. Thomas J. Orbison, who has been serving as captain in the Medical Corps with the American Expeditionary Forces in France, and is now with the Army of Occupation in Germany, has been ordered to join a Russian mission which has to do with the food problems of Russia. He will probably not return to this city until next fall.

Columbia University today conferred the degree of Master of Arts on Dr. W. Jarvis Barlow of Los Angeles, famous for his researches in the treatment of tuberculosis. Dr. Barlow will not return to Los Angeles for several weeks.

Dr. Fred Bowen has returned to Los Angeles after serving eighteen months in Army Medical Corps service with the rank of captain. He was in charge of the surgical rooms at Camp Fremont, and later was in the Letterman Hospital at the Presidio. Dr. Bowen will resume his practice.

Dr. U. G. Miller, who served in the Army Medical Corps with the rank of captain, has returned home to Los Angeles and resumed practice. Dr. Miller went to France from Camp Lewis, July 11 last, and was with Base Hospital No. 97 at Allerey in the surgical department. He speaks in terms of warmest praise of the American soldiers, and especially of their fortitude when ill or wounded.

Major Howard W. Scager, Medical Corps, U. S. A., recently returned from France, is visiting his family here for a few days before leaving for Camp Lewis, where he will take command of a reconstruction hospital.

Pending the outcome of a bacteriological study of the dysentery epidemic at Lancaster, Dr. J. L. Pomeroy, County Health Officer, has sent Sanitary Officer Harold Young to Antelope Valley as supervisor of the clean-up campaign which, it is hoped, will prevent a spread of the contagion.

Supplementary to the work of citizens, which will be directed by a committee of twelve business men, headed by D. W. Fuller of Lancaster, Mr. Young has organized the Lancaster troop of Boy Scouts into a company of fly exterminators. Yesterday he shipped a quantity of fly-traps and swatters to the valley, and went there to superintend the work of making Antelope Valley flyless.

Commencement exercises of the Los Angeles County Hospital Training School for Nurses was held at the chapel on the hospital grounds. Ad dresses were given by Supervisor Bean and Dean MacCormack of St. Paul's Pro-Cathedral, following introductory remarks by Rev. E. E. Haring, chaplain of the hospital.

The following twenty-one nurses graduated:

Alene Bailey, Catherine Bamesberger, Christine Bamesberger, Minnie Bennett, Joella Burns, Elsie Cressman, Thelma Driggs, Louise Geoff, Nellye Kendall, Charlotte Mahon, Eunice McGoldrick, Margaret McKenna, Ina Merrow, Marv Pearson, Althea Perkins, Sarah Price, Helen Richardson, Inez Dowe, Lou Alice Rupprecht, Undyne Wolf, Janet Wood.

The County Hospital Training School for Nurses is now the largest training school west of Chicago, with exceptional clinical and physical facilities for adequate training. A new nurses' home, costing \$175,000, is in course of construction and will provide up-to-date housing, study and recreation accommodations. The school was founded twenty-four years ago, and during that period 425 nurses have been trained and graduated and 135,000 patients have passed through the hospital.

Los Angeles to Endow Bed in Rheims Hospital.

Los Angeles is to have a bed endowed in perpetuity in the proposed American Memorial Hospital at Rheims, France, it was announced yesterday by L. N. Brunswick, State Chairman of the American Committee for Devastated France, who stated that he had given his pledge to Mrs. Benjamin G. Lathrop, who recently visited Los Angeles in the interest of the hospital, that the \$6000 needed will be raised.

A bronze tablet will be placed over the bed, reading: "This bed endowed in memory of the sons of Los Angeles who died on the field of honor in France, making the supreme sacrifice for the sake of civilization and humanity." Contributions will be gratefully received by the treasurer, Major William A. Brophy, Home Savings Bank, Eighth street and Broadway.

The American fund for French wounded has

given in cash the \$250,000 necessary to build the hospital, and the plans have been drawn by American architects, and American contractors will sail for France next month to begin the construction work. The money contributed by one hundred American cities and individuals will be invested in the United States and the income will provide for the perpetual care of patients.

Mental Tests for Soldiers.

Dr. Thomas J. Orbison, Los Angeles neurologist, captain in the Medical Corps with the American Army of Occupation in Germany, has written an interesting letter to Mrs. W. S. James, chairman of the board of trustees of the Los Feliz Hospital. It is dated May 7, from Base Hospital No. 93. Dr. Orbison tells of the work being done in the army to ascertain the mental efficiency and state of offenders, both by the authorized summary court-martial and by the unofficial "Kangaroo court" conducted by the men themselves. Dr. Orbison writes thus of the summary court-martial:

"We try all offenders who have been charged with offenses covered by the 121 articles of war. I was summary court officer, and the first case I tried was a young colored boy who had two years' army service, and who had at various times committed petty offenses. I at once recognized him to be a middle-grade moron, and examined him carefully to get at his mental age. At once his whole problem was solved and his offenses explained. I recommended that the charges against him be withdrawn and that he be discharged from the army as mentally deficient.

"The 'Kangaroo court' is the name given to the unofficial court organized and run by enlisted men. The men elect a judge, recorder, attorney for the prosecution, and one for the defense, a jury with its foreman and a sheriff. The court is under the oversight of a commissioned officer. The court tries the men for petty offenses. Justice is handed out by the men with no uncertain hand.

"The court is always crowded with enlisted men, who gather to hear the proceedings. On more than one occasion the offender was given a severe sentence, and I was able to help the cause of justice by explaining to the court that this or that man was mentally deficient. In other words, I appeared as an expert witness, just as I had in the Superior courts of Los Angeles County. In two cases where I testified the jury came back with a revised sentence that recognized the mental condition and made allowance for it. You can imagine how interesting it all was and how much the men appreciated our desire to show them a fair field and a square deal."

ORANGE COUNTY.

The June meeting of the Orange County Medical Society was held at James' Cafe, Santa Ana, at which time the Society were the guests of Dr. C. C. Violett of Garden Grove. The doctor entertained with a delicious luncheon served in several courses. The guest of honor was Dr. Ross Moore of Los Angeles who spoke at length of his many experiences in the war. The meeting closed at a late hour after each and all had spent a most enjoyable evening.

The regular meeting for July was held at the usual place and the paper on "Chronic Posterior Urethritis" was read by Dr. H. D. Meyers of Santa Ana. The doctor has had an extensive training in Genito-urinary Surgery and has recently opened an office in Santa Ana to practice his specialty. The paper brought out a very lively discussion, several members taking a skeptical attitude toward much of the so-called modern treatment of the condition and others being more optimistic. On the whole the paper and discussions were very instructive and interesting as some of the mem-

bers recently returned from the war zone enlivened their talks with personal experiences.

Dr. John Wehrley has resumed his practice in Santa Ana after spending several months in France in a base hospital.

Dr. H. Van de Erve of Louisville, Ky., has accepted a position as laboratory technician with Drs. Johnston and Wickett, Anaheim.

SAN DIEGO COUNTY.

Dr. Emil C. Black has returned to town, donned civilian clothes again and resumed his former practice.

Dr. Paul Wegefarth has received his honorable discharge from service and resumed his practice in San Diego.

Secretary Crawford is enjoying a motor trip up the coast through California, Oregon and Washington.

Dr. J. E. Jennison has been enjoying a motor trip to Yosemite.

Dr. Charles M. Fox is enjoying a few weeks' vacation in Chicago and other parts of the East.

Drs. H. P. Newman and L. C. Kinney have returned from the A. M. A. meeting at Atlantic City and other scientific gatherings in the East.

Dr. C. E. Rees and Dr. John W. Warren are also in the East.

The annual dinner-dance of the County Society was enjoyed by many of the members and their ladies at the Point Loma Golf Club on Saturday, June 28, with its customary blending of refreshment and good fellowship. No formal program is presented at these meetings.

On the evening of June 10 a somewhat unique meeting was held in the Society rooms, the honor guests of the evening being about a dozen men and women of San Diego who have practiced medicine in the county for the last quarter of a century. Reminiscences and light refreshments featured an enjoyable evening.

The County Hospital has recently added the following members to its efficient house staff: Dr. F. O. Austin, a graduate of Rush Medical College, Chicago, who had seen six months' service in the hospital of the City and County of San Francisco before coming to San Diego; Dr. Nerad of the University of Minnesota, Dr. Lineer of the same university, Dr. Deering of the College of Physicians and Surgeons of San Francisco, Dr. Psota of Rush Medical College, Chicago.

Contracts have just been let for the screening of all porches of the new Vaclain Tuberculosis Home, thus increasing its capacity considerably beyond sixty beds.

OTHER COUNTIES PLEASE NOTE: There will be held in San Diego, in the rooms of the San Diego County Medical Society, 1230 American building, Fifth and Broadway, on the evening of Tuesday, September 9, a grand rally of the Southern California members of the League for the Conservation of Public Health. As this is a public holiday, why not observe it by motoring into San Diego and help make this meeting a success. All doctors and others interested in public health are urged to attend. Good speakers from San Francisco and Los Angeles will be present. **EVERYBODY HELP HELP EVERYBODY!**

SAN JOAQUIN COUNTY.

The regular monthly meeting of the San Joaquin County Medical Society was held at the residence of Dr. H. E. Sanderson, Wednesday evening, May 28th. The members present were: Drs. E. A. Arthur, D. R. Powell, L. Haight, Margaret Smyth, J. P. Davison, C. R. Harry, H. E. Sanderson, L. Dozier, R. R. Hammond, B. J. Powell, Mary Taylor, F. J. Conzelmann, Grace McCoskey, N. E. Williamson, J. S. Marlette, W. C. Adams, J. P. Martin, R. T. McGurk and Dr. Edward N. Ewer of Oakland as guest.

The Committee on Admission reported favorably

upon the name of Dr. J. P. Martin, formerly of Nevada and he was elected a member of our society.

Dr. E. N. Ewer read a paper on "Obstetric Economics" in which he brought out as one of the main points the necessity of frequent and complete examinations of the prospective mother and the advisability of radiographs of the teeth to ascertain whether foci existed that might produce serious complications. Dr. Ewer emphasized the point that a successful obstetrician should be an experienced surgeon. Interesting and profitable discussion was led by Dr. C. R. Harry.

At the conclusion of the paper Dr. R. T. McGurk, who had acted as secretary while Dr. Dewey R. Powell was in government service, tendered his resignation and Dr. Powell was appointed secretary for the remainder of the year.

The regular monthly meeting of the San Joaquin County Medical Society was held at the Chamber of Commerce quarters, Friday evening, June 27, 1919. Those present were:

Drs. E. A. Arthur, J. T. Davison, C. R. Harry, C. D. Holliger, L. Dozier, H. Q. Willis, C. F. English, R. T. McGurk, B. J. Powell, J. P. Martin, Grace McCoskey, Mary Taylor, N. E. Williamson, B. F. Walker, D. R. Powell, W. E. Priestly and F. S. Marnell.

The report of Committee on Admission was read, in which they recommended that Drs. F. S. Marnell of the State Hospital staff and L. E. Trethaway of the County Hospital be admitted to membership. It was unanimously adopted by the Society. The above doctors were declared duly elected members.

The business of the evening was a discussion of a proposed increase in fees and a committee was appointed to recommend a general revision of the fee schedule of the Society, at present in effect. It was also moved and carried unanimously that the following minimum fee schedule be adopted, beginning July 1, 1919: Office visits, \$2.50; house calls, day, \$3.00; night visit, \$5.00; confinement cases, \$50.00.

The scientific discussion was to have been devoted to the men more recently returned from service but owing to various circumstances the only one present was the secretary, Dr. Dewey R. Powell, who spoke briefly of his experiences at the Letterman Hospital.

Notice

A copy of the Constitution and By-Laws of the Medical Society of the State of California, together with the Medical Defense Rules, has been mailed to each member of the Society. The State Society office will appreciate hearing from any member who fails to receive his copy. The State Secretary should be promptly notified of any change of address, and all communications should be addressed to Dr. Saxton Pope, Secretary, 930 Butler Building, San Francisco.

State Board of Medical Examiners

NEW MEMBERS.

Dr. C. I. Gaddis, D. O., Secretary and Treasurer of the State Society of Osteopaths, vice Dr. Ernest Sisson, resigned; both of Oakland.

Dr. C. J. Gaddis was a student at Amity College, Iowa, and Orleans College in Nebraska. He graduated from the State Normal School at San Jose, serving afterwards as principal of a high school. He subsequently graduated from the American School of Osteopathy at Kirksville, Mo. Dr. Gaddis is past president of the State Osteopathic Association, trustee of the National Osteo-

pathic Association, and Secretary-Treasurer of the State Society of Osteopaths.

Dr. A. J. Scott, Sr., Auditorium Building, Los Angeles, appointed vice Dr. Harry V. Brown, Los Angeles, term expired.

Dr. A. J. Scott, Sr., graduated from the University of Michigan in 1882 and spent the following ten years as surgeon for different lumber companies in Northern Michigan, going from there to Milwaukee, Wisconsin, where he remained until coming to California in 1902. Having passed the State Board in 1904, Dr. Scott took up the practice of medicine in Los Angeles where he has resided since that time. Besides giving attention to his professional work he has identified himself with the municipal and political affairs of his section, having been a director in the Chamber of Commerce, president of the Los Angeles County Republican organization and one of the directors of the California Liberty Fair Association.

Department of Pharmacy and Chemistry

Edited by FELIX LENGFELD, Ph. D.

Help the propaganda for reform by prescribing official preparations. The committees of the U. S. P. and N. F. are chosen from the very best therapeutists, pharmacologists, pharmacognosists and pharmacists. The formulae are carefully worked out and the products tested in scientifically equipped laboratories under the very best conditions. Is it not plausible to assume that these preparations are, at least, as good as those evolved with far inferior facilities by the mercenary nostrum maker who claims all the law will allow?

The following ruling bearing upon the Federal narcotic law relating to the quantity of narcotic drugs that may be dispensed or prescribed by physicians, dentists and veterinary surgeons has been received by Collector of Internal Revenue Justus S. Wardell from the department, and he cautions all persons registered under the act of December 17, 1914, to closely observe and follow the same.

The ruling contained in T. D. 2200 of May 11, 1915, permitting a practitioner to dispense or prescribe narcotic drugs in a quantity more than is necessary to meet the immediate needs of a patient is hereby revoked and the revocation shall be applicable in all cases whether a decreasing dosage is indicated or not.

The act of December 17, 1914, as amended by the act of February 24, 1919, permits the furnishing of narcotic drugs by means of prescriptions issued by a practitioner for legitimate medical uses, but the Supreme Court has held that an order for morphine issued to an habitual user thereof, not in the course of professional treatment in an attempted cure of the habit, but for the purpose of providing the user with morphine sufficient to keep him comfortable by maintaining his customary use, is not a prescription within the meaning and intent of the act. U. S. vs. Doremus, No. 367, October term, 1918, T. D. 2809.

In view of this decision, the writer of such an order, the druggist who fills it and a person obtaining drugs thereunder, will all be regarded as guilty of violating the law.

The Government Printing Press has just issued the report of the special Committee on the Traffic in Narcotic Drugs. This committee was appointed by the Secretary of the Treasury in March, 1918, and consisted of Henry T. Rainey—Member of Congress; Professor Reid Hunt, B. C. Keith, Deputy Commissioner of Internal Revenue; A. G. DuMez, U. S. Public Health Service, and Dr. B. R. Rhees, Clerk.

All official sources of information were placed at the disposal of the committee and, in addition, questionnaires were sent to all registered physicians and druggists as well as to all police chiefs,

health officers, heads of penal and corrective institutions, charity institutions and private hospitals and sanitariums throughout the United States. Unfortunately, most of those addressed failed to answer and so the statistics are incomplete. It was deemed advisable to consider the answers as representative and to calculate statistics for the whole on the basis of the answers received.

Thirty and two-thirds per cent. of the physicians answered and these reported 73,150 addicts, from which it is assumed that there are 237,655 addicts in the country under treatment. This is probably a fair approximation; in some cases the information was so vague that reliance could be placed on only 4 to 6 per cent. of the total mailed. Such data are suggestive but of little statistical value. It is interesting to note that only 30 2/3 per cent. of the physicians answered whereas 52 per cent. of the druggists (100 per cent. in California) and 60 per cent. of the police chiefs answered. This would seem to indicate that druggists and police chiefs appreciate the gravity of this problem to a greater extent than physicians.

The importance of the subject is shown by that fact that there are now registered under the Harrison Act more than 125,000 physicians, 48,000 druggists, 42,000 dentists and 10,000 veterinarians, and that the officially reported consumption of opium is about 500,000 pounds annually and of coca-leaves about a million pounds. About as much more is illicitly imported. The official reported importation of medicinal opium into this country as reported by decades has steadily increased since 1860 but this is not true of the per capita consumption which increased from about 26 grains in 1860-69; 56 grains in 1890-99 and decreased to 35 grains in 1910-15. Even this is 13 to 72 times as much as other countries whose statistics are available. During the same period the per capita consumption of smoking opium increased from 2 grains 1860-69 to 13 grains in 1900-09. Its importation is now absolutely forbidden. It is estimated that there are in the United States about 1,000,000 addicts of whom less than 25 per cent. are under a physician's care. The police chiefs of the larger cities generally report that the number of addicts is increasing while those of the smaller cities report a decrease. Various reasons are given, some considering prohibition responsible for an increase, others for a decrease. Both San Francisco and Portland report increase. The general opinion seems to be that prohibition will make many seek a substitute stimulant and that an increase of addicts may be looked for. Morphine seems the favorite among the addicts, then follow cocaine and heroin. The latter seems to lead to crimes of violence and in that respect is particularly dangerous; cocaine seems to cause a less fundamental, if more intense, change in its addicts, physically and mentally, than does morphine and therefore, its habits may be cured and become normal more quickly. The reports of the private institutions seem to show but a small percentage of cocaine fiends who want to be cured. Fiends are equally divided between the two sexes and scattered among all trades and professions. Their age runs from 12 to 75 years. They are usually American born or, if foreign, acquired the habit in this country. This does not apply to Orientals. They occupy all kinds of social position, though of course, the underworld has more than its due proportion. They are usually, though not always, of low mentality or suffering from some nervous disorder. Most of them ascribe the habit to drugs administered by a physician either personally or prescribed, or to association with addicts. Most of the addicts get the narcotic from the illicit drug peddlers who are said to have a national association 1800 strong. The drugs are smuggled from Mexico and Canada (and probably from Japan and China although the report is

silent on this). Cocaine and morphine are even sent across the border and then smuggled back into the country. It takes about thirty days to acquire a narcotic habit though some acquire it in 10 days. Heroin seems particularly dangerous, combining the intensity of cocaine and persistence of morphine. Its devotees are peculiarly prone to acts of violence.

The conclusion and recommendations of the Committee are as follows: "From the data obtained the Committee is convinced that there is a nation-wide use of narcotic drugs for other than legitimate medical needs, and that such use for the satisfaction of addiction has materially increased in certain sections of the country despite the vigorous efforts exerted in the past four years in the enforcement of the Federal antinarcotic law, and in the enforcement of the laws of the States and municipalities which have enacted such for the control of habit-forming drugs. Furthermore, it is apparent from the replies to questionnaires sent out that there has been no definite or concerted action on the part of the majority of the States and municipal governments to suppress the illicit traffic and use of habit-forming drugs and that there has been but little, if any attempt made to secure accurate information concerning the problem of drug addiction as a basis for the enactment of proper legislation and regulation. The replies to the questionnaires sent out to State, county and municipal officials show that a great majority of these officials kept no records and therefore have no information upon the subject. This condition is believed to be due principally to a lack of knowledge of the seriousness of the situation. In many cases it is no doubt partly due to the more or less general acceptance of the old theory that drug addiction is a vice, or depraved state, and not a disease, as held by modern investigators. This attitude has had the effect of holding these unfortunate creatures up to public scorn, and thereby lessening any interest in their welfare. Records having a bearing on any and all phases of drug addiction are of sufficient importance to warrant immediate action for the purpose of remedying these conditions.

Inasmuch as the Harrison antinarcotic law has recently been amended by Congress in accordance with the suggestions made by the Committee in its preliminary report, it is believed that the present Federal Statute confers the necessary power for the effective control of the manufacture, sale, distribution and administration of narcotic drugs, and it is the opinion of the Committee that no further national legislation is necessary for this purpose at this time. It is, however, the opinion of the Committee that there yet remain several phases of the narcotic problem which merit the consideration of the Congress.

One of the more important of these is the question of the responsibility for the care and treatment of addicts who, by reason of the amended statute will find it difficult, if not impossible, to obtain the supplies of drugs necessary to maintain their normal condition due to habituation. The enactment of legislation on the part of the National Government covering this phase of the problem, likewise the passage of similar measures by the States and municipalities, is deemed urgently necessary.

There also remains the international aspect of the opium traffic which should receive immediate consideration. If this and the other countries represented at the international opium convention are to effectually control the traffic in opium and other habit-forming drugs, some concerted action is necessary. It is, therefore, recommended that this country, through the State Department, take up this matter with the other powers which were signatory to the international agreement entered into at The Hague in 1912 with a view to persuading such Governments to enact the necessary legislation to carry out the terms of The Hague

protocol. Otherwise, the task of this country of suppressing the illicit traffic in habit-forming drugs will be rendered much more difficult.

Pending the ratification of The Hague opium convention by the various powers and the enactment of necessary legislation to carry out the terms thereof, it is urgently recommended that the United States Government take up with the Government of the Dominion of Canada and Mexico the subject of more effective control of the manufacture and exportation of narcotic drugs therefrom for the purpose of securing their co-operation with this Government in the suppression of the smuggling of such drugs from one country into the other, which now affords the principal source of supply for the illicit traffic in these drugs.

It is also recommended that educational campaigns be instituted in all parts of the United States for the purpose of informing the people of this country, including the medical profession, of the seriousness of drug addiction and its extent in the United States, and thereby secure their aid and co-operation in its suppression.

It is also recommended that both public and private medical organizations which have research facilities be requested to undertake studies to determine the nature of drug addiction with the view of improving the present forms of treatment or evolving some new and more efficient method of handling these patients. The latter statement is made in view of the fact that at the present time there are numerous forms of treatment for drug addiction, none of which appear to have been given a thorough trial by the medical profession, as a whole, or to have received the unqualified support of those members of the profession who have had no financial interest in the matter.

It is the opinion of the Committee, based on the results of its investigations, that the medical need for heroin, a derivative of morphine, is negligible compared with the evil effects of the use of this alkaloid, and that it can easily be replaced by one of the other alkaloids of opium with the same therapeutic results, and with less danger of creating habituation. Therefore, consideration should be given the subject of absolutely prohibiting the manufacture, sale, distribution or administration of this most dangerous drug by the States and municipalities.

MEDICAL USES OF WINES AND SPIRITS.

TREASURY DEPARTMENT

Office of Commissioner of Internal Revenue
Washington, D. C.

June 30, 1919.

Physicians may prescribe wines and liquors, for internal use, or alcohol for external uses, but in every such case each prescription shall be in duplicate, and both copies be signed in the physician's handwriting. The quantity prescribed for a single patient at a given time shall not exceed one quart. In no case shall a physician prescribe alcoholic liquors unless the patient is under his constant personal supervision.

All prescriptions shall indicate clearly the name and address of the patient, including street and apartment number, if any, the date when written, the condition or illness for which prescribed, and the name of the pharmacist to whom the prescription is to be presented for filling.

The physician shall keep a record in which a separate page or pages shall be allotted each patient for whom alcoholic liquors are prescribed, and shall enter therein, under the patient's name and address, the date of each prescription, amount and kind of liquors dispensed by each prescription, and the name of the pharmacist filling the same.

Any licensed pharmacist or druggist may fill such

prescriptions if his name appears on the prescription in the physician's handwriting.

Druggists filling these prescriptions shall preserve in a separate, carefully guarded file, one copy of every prescription filled, and once a month shall transmit to the Collector of Internal Revenue a list showing the names of the physicians, the names of the patients, and the total quantity dispensed to each patient during the month. These lists shall be subject to immediate examination and frequent review in the collectors' offices, and wherever there is indicated either (1), that a physician is prescribing more than normal quantities, or (2), that any patient, through the services of one or more than one physician, is procuring more than a normal quantity, the collector shall report the facts to the Commissioner and the United States Attorney.

Pharmacists should refuse to fill prescriptions if they have any reason to believe that physicians are dispensing for other than strictly legitimate medicinal uses, or that a patient is securing, through one or more physicians, quantities in excess of the amount required for legitimate uses.

The following questions were submitted to the Commissioner of Internal Revenue and are given with the answers received from that official:

(1) May a physician have his secretary or some other person write a narcotic prescription and then sign it himself or must the whole prescription be written by him?

A prescription may be prepared by a secretary or agent for the signature of a physician, but the physician will be held responsible and liable to the penalties imposed in case the prescription does not conform in all essential respects to the law and regulations.

(2) In case the physician neglects to put in the name and address of the patient, or the date, may this be filled in afterwards by the patient or by some one authorized to do so by the physician?

The law does not, in the opinion of this office, contemplate the making of changes in a prescription by a person other than the physician after signature by the physician. This office can not consent to such practice. If any person is authorized by a physician to alter or add to a prescription after it has been signed, such person will be regarded as the agent of the physician and the physician will be held responsible for any unauthorized changes which may be made and any violation of the law which may occur.

(3) In case the physician desires to continue the same medicine may he request the druggist to send him a copy of his previous prescription and then sign it or must he write it himself?

This office can not consent to the furnishing by a druggist of a copy of a prescription for the physician's signature. There is no objection to a druggist furnishing a copy of a prescription to the physician who issued same, provided it does not conflict with any State laws, from which the physician may prepare an entire new and original prescription. The druggist who furnishes the copy of a narcotic prescription should write across the face thereof "Copy—not to be filled," for if it were found subsequent to the issuance of a copied prescription that it had been filled the druggist might be subjected to the charge of forgery of a record required by internal revenue laws.

(4) Furthermore, may the druggist filling such a prescription use a label containing the original number of the prescription only or must the label bear a new prescription number? (Even if it does bear the old number?)

Under the amended law each container of drugs put up by the dealer upon a prescription must bear the name and registry number of the druggist, serial number of prescription, name and address of the patient, and the name, address and registry

number of the person writing said prescription. You will note that by the express language of the Act not only must a new prescription number be used but an entire new label must be furnished.

(5) Is there any way by which a physician can telephone an emergency order and mail the prescription?

A druggist is not permitted under the provisions of the law to fill prescriptions received over the telephone.

You state that it is sometimes desirable to have a narcotic reach a patient living at a considerable distance from the physician, and that many physicians hesitate to follow the ruling of this office to the effect that a messenger may take the medicine to the house of the patient, receiving the prescription when he delivers the medicine. You are advised that in such case the druggist must be in possession of a properly prepared prescription before permitting narcotic drugs covered by the law to leave his possession, and this office knows of no other expedient by which this may be accomplished without subjecting the druggist who furnishes the drugs to liability for violation of the law.

Important! Please Read

1. The 1919 Edition of the Directory of Licentiatees of the State of California contains **only** the names of those licentiatees who have complied with the provisions of Section 2, Chapter 81, Statutes of 1917, by payment of either the annual tax or, in some instances, the penalty fee.

2. Licentiatees who have failed to pay the annual tax to the office of the Board of Medical Examiners at Sacramento, have automatically forfeited their authority to practice and re-instatement of the certificate so revoked, may be effected on filing a written request on form 124, mailing same to the Board office accompanied by a cashier or certified check, express or post office money order in the sum of \$10.00.

3. Licentiatees who have been in **Government Service** and failed to pay the \$2.00 annual tax must file an affidavit with the Board of Medical Examiners which shall include (1) a copy of orders to report for duty, (2) copy of orders relieving from duty, and (3) a definite statement by the licentiate in such affidavit, noting the date of entry into service as well as the date of separation from service; further certifying that such Government Service has been continuous during the interval between the dates therein noted, accompany the affidavit with a check for \$2.00 payable to the Board of Medical Examiners.

4. Failure of licentiatees to furnish the affidavit noted in paragraph 3, will cause needless correspondence as the affidavit will be exacted in every instance, in order that equitable adjustment of each specific case may be effected.

5. Licentiatees in Government Service who have paid the \$10.00 penalty fee, are entitled to refund under certain conditions which may be learned by communication with the office of the Board at Sacramento, enclosing the affidavit as specified in paragraph 3 above.

6. Should you know of any one whose name does not appear in the 1919 Directory of licentiatees of the State of California and who may be engaged in practicing any system of treating the sick or afflicted, kindly communicate with the office of the Board of Medical Examiners, Forum Building, Sacramento, giving full particulars.

California State Civil Service Examinations

Assistant Physician and Interne State Hospitals for the Insane.

Date of Examinations, August 30, 1919. Last day for filing applications in Sacramento, August 23, 1919.

The California State Civil Service Commission announces that examinations for the positions of First, Second and other Assistant Physician and for Interne in the State Hospitals for the Insane, will be held in Sacramento, San Francisco and Los Angeles on August 30, 1919. The salaries for the various positions are as follows:

Position: First Assistant Physician; Salary: \$2460 1st, 2nd and 3rd year, \$2700 4th, 5th and 6th year, \$2940 7th year.

Position: Second and other Assistant Physicians; Salary: \$1740 1st year, \$1860 2nd year, \$2040 3rd and 4th year, \$2220 5th and 6th year, \$2400 7th year.

Position: Interne; Salary: \$1200.

Maintenance is provided in each case. This includes provision for wife and minor children, except in the case of internes.

Candidates for these examinations must hold certificates entitling them to practice medicine and surgery in California, and must be graduates of the medical course of either a Class A or Class B institution. To qualify as First Assistant Physician, candidates must have had at least two years' actual experience in the care and treatment of the insane. No previous experience is required to qualify for the other grades, except for Second Assistant Physician, for which candidates must have had at least one year of actual experience in the care and treatment of the insane. Candidates for positions in the Southern California State Hospital must be graduates of recognized homeopathic medical schools.

The examinations are open to all American citizens residing in California who have reached their twenty-first but not their sixtieth birthday on the date of the examination, and who meet the above requirements. Persons who have reached their forty-fifth birthday will not be eligible unless they have had at least three years' recent experience in a hospital for the insane.

Candidates for the position of Interne will not be given a written test, but will be rated upon their fitness for the position as determined by inquiries made by the Civil Service Commission.

The examination for the various grades of Assistant Physician will include the following subjects:

Subjects: 1. Written Test; relative weight, 60. The questions under this head will be framed to draw out the candidate's knowledge of psychiatry. There will be two sets of questions, one for First Assistant Physicians and one for Second and the other Assistant Physicians. Candidates must specify in their applications which examination they desire to take.

2. Education, Experience and Fitness; relative weight, 40. The rating in this subject will be based upon the value of the candidate's education and experience and upon his particular fitness for this work as revealed through such investigation as the Civil Service Commission may make. The rating will be given at an oral interview to be conducted by a special board of examiners appointed for the purpose by the Civil Service Commission. Only those candidates who secure a rating of at least 70% in the written test will be given this interview. Total relative weight, 100.

Four hours will be allowed for the written test, from 8 A. M. to 12 M.

Candidates must secure a rating of at least 70% in the oral interview in order to pass the examination.

Persons desiring to enter any of these examina-

tions may secure application blanks from the State Civil Service Commission at either of the following offices: Room 331, Forum Bldg., Sacramento; Room 1007, Hall of Records, Los Angeles; or from the following offices of the State Free Employment Bureau: 933 Mission St., San Francisco (men); Pacific Bldg., San Francisco, (women); 401 Tenth Street, Oakland; 176 So. Market Street, San Jose; 1834 Kern Street, Fresno; 200 So. San Joaquin Street, Stockton.

Completed applications must be filed with the State Civil Service Commission, Forum Building, Sacramento, on or before August 23, 1919.

STATE CIVIL SERVICE COMMISSION.

Why Report Venereal Disease?

The news that Texas physicians are already reporting 5000 cases of venereal diseases a month to their board of health, and that 95 per cent. of these cases are acute, shows that reporting is successful where it is given a fair chance, and easily disposes of the objection sometimes raised by the ill-informed, who argue that it will be impossible to get the doctors to report their cases.

In Texas, as in most other states, cases of venereal disease are reported in the first place only by the physician's serial number, and the name of the patient does not go to the board of health unless he shows such a deliberate disregard for the protection of the public as to make it desirable that the state quarantine laws should be invoked against him. This rarely happens except in the cases of prostitutes and their associates, whose whole mode of life shows an utter contempt for the public welfare, and who therefore can hardly be expected to display any concern about disseminating infection.

But what good is a report to the board of health, if there is no name attached? This question has not only occurred to laymen, but even to some medical men who have not seen the system in operation.

The question would hardly arise, if the inquirer could bring himself to look on syphilis and gonorrhea in the light of other communicable diseases.

Reporting such cases to the board of health, merely by number, has the following among many other advantages:

1. It practically obliges the patient to remain under treatment until cured, and not merely until the most prominent symptoms have disappeared. It is the patient whose symptoms have been relieved, who "feels all right" but who is not cured, who disseminates most of the disease, and who in particular is responsible for most of the infection of innocent wives and children.

2. It ensures that the patient will continue treatment under some other doctor, if he moves from the town where he began.

3. It permits the board of health to get a fairly accurate idea of whether the doctors in a given locality are obeying the law. If a remarkably small number of cases is reported, an investigation can at once be made.

4. It aids the board of health in securing enforcement of the criminal statutes. Usually the source of infection (e. g., prostitute) is stated on the report. If a remarkably large number of infections ascribed to prostitutes is reported from a town, the health authorities can at once get in touch with the peace officers, and bring about a repression of "the business."

5. It enables the board of health to know in what part of the state venereal diseases are most prevalent and approximately their prevalence: thus enabling it to take such measures as are necessary for the establishment of clinics, supply of medicines, detail of nurses and doctors, or appropriation of funds to protect the public health.

These advantages are not speculative. They have been demonstrated by experience. An attempt to control venereal diseases without obliging physicians to report cases is certain to lack effectiveness.—Social Hygiene Bulletin, May, 1919.

Proposed Plan for World-Wide Co-ordination of Red Cross Activities

At a recent conference held in Paris, the following outline of a proposed plan for world-wide extension and co-ordination of Red Cross activities was submitted by Henry P. Davison, former chairman of the War Council of the American Red Cross, and now chairman of a committee which includes representatives of the Red Cross Societies of France, Great Britain, Italy, Japan, and the United States:

"The International Red Cross Committee at Geneva has called a convention of the Red Cross organizations of the world to meet at Geneva thirty days after the declaration of peace.

"This call was issued at the request of the Red Cross Societies of the United States of America, France, Great Britain, Italy, and Japan, whose representatives have constituted themselves a 'Committee of Red Cross Societies' to formulate and to propose to Red Cross societies of the world an extended program of Red Cross activities in the interest of humanity.

"The governments of the five countries represented in this committee have, from the outset, been fully informed of the proposal to hold such a world conference. They regard it as important and each has separately manifested its desire that a plan embodying the purposes of this committee be prepared for submission to such conference.

The Motive of the Plan.

"The world is appalled at the widespread human suffering which has followed in the wake of the war. Problems of food and reconstruction are of such magnitude that they must of course be dealt with and financed by governments, but in addition, there is a vast field for supplementary and emergency effort on the part of voluntary national relief organizations.

"The original Geneva convention was designed primarily to guarantee neutrality to those actually engaged in the care of sick and wounded combatants. This war has shown, however, that the battlefield of modern warfare extends into every home of the nations involved. Out of this fact has grown the necessity that the Red Cross should, in time of war, extend its ministrations to homeless refugees as well as to civilians in their homes behind the lines.

"The International Red Cross at Geneva has from the very beginning done an important work. Throughout the present war, its high principles of both neutrality and helpfulness have been maintained. Its position of pre-eminence as the great natural agency should be upheld, and it is the belief that its ideals for extending relief in time of war can be applied with equal vigor and effectiveness in time of peace.

"The experience of the war has developed an advanced practice in care for the welfare of motherhood and childhood. It has likewise demonstrated novel and most promising possibilities in the care and treatment of tuberculosis and other diseases.

"It is accordingly of unusual importance at this moment in the world's history that representatives of the various peoples should meet in conferences, compare information and experience and determine how voluntary effort in every country may best exert itself in the service of humanity.

"It is peculiarly fitting that such a world conference should meet under the aegis of the

Red Cross, for the Red Cross has shown itself to be an instrument of peculiar flexibility and adaptability with which to promote efforts for the relief of suffering humanity. The Red Cross emblem signifies next to human sympathy, above all else—neutrality—neutrality as between nations, as between races, as between religions, as between classes. While, in its organizing form in each country, it enjoys intimate relations with its own, yet it preserves its voluntary and democratic character.

"It is expected that out of this world gathering there will emerge an international organization through which the peoples of the world may co-operate in stimulating and developing activities in the respective countries for the betterment of mankind. Such activities would foster the study of human disease, promote sound measures for public health and sanitation, the welfare of children and mothers, the education and training of nurses and the care and prevention of tuberculosis, venereal diseases, malaria and other chronic or infectious diseases, and would provide measures for handling problems of world relief in emergencies, such as fire, famine, and pestilence.

Plan of Procedure.

"It is the purpose of the 'Committee of Red Cross Societies' to proceed immediately to the definite formulation of the plan to be submitted to the World Red Cross Congress, and for that purpose, it will establish headquarters at Cannes, France.

"To that point will be invited the world's leading experts in public health, tuberculosis, hygiene and sanitation, and child welfare. It is expected that the past experience of the nations will be carefully canvassed, with a view to the formulation of programs of action which can be laid before the Congress at Geneva. Following that event, these programs would be communicated to the Red Cross societies of all the nations; societies would each, in its own way, stimulate the carrying out of those programs among the respective peoples.

"It is proposed that following the world Congress, there will be established at Geneva a permanent working organization. Such organization will comprise experts who will keep in touch with the developments throughout the world in the various lines in which the Red Cross is interested. Immediately developments should have been realized in any part of the world, either in research or practice, full information would be communicated to the central organization at Geneva and there scrutinized. This information and expert advice concerning it would then be immediately transmitted to the Red Cross societies of the world.

"It is not the thought that the international organization at Geneva would itself carry out the programs adopted, or that the Red Cross societies of the individual countries would themselves necessarily conduct operations along the respective lines indicated.

"It is not the thought that the international organization at Geneva will thereafter continue to formulate and propose lines of Red Cross effort in the interest of humanity. These programs will forthwith be communicated to the individual Red Cross societies.

"Efforts would be made by the international organization to stimulate the development in each country of an active and efficient Red Cross organization in keeping with the newly conceived possibilities of the Red Cross movement.

"Each national Red Cross society in the light of information from the international organization or on the basis of its own experience or desires will stimulate among the people of its own country effective measures to accomplish the results aimed at.

The Meaning of the Plan as a Whole.

"The conception involves not merely efforts to relieve human suffering but to prevent it: not alone the suffering of one people but an attempt to arouse all peoples to a sense of their responsibility for the welfare of their fellow beings throughout the world.

"In brief, the plan contemplates the formation of what will be, in effect, an association in the interest of all humanity.

"It is a program, both ideal and practical; ideal in that its supreme aim is humanity; practical in that it seeks means and measures to meet the tragic crises which are daily recurrent in the lives of all mankind.

"Surely, the operation of such a plan would develop a new fraternity and sympathy among the peoples. By so doing, an important contribution will have been made toward the success of the League of Nations, and this present plan should be viewed as a vital factor in the larger undertaking.

"The League of Nations aims to hold all peoples together in an effort to avoid war and to insure freedom; this particular plan aims at devising a procedure whereby all peoples may co-operate actively in promoting the health and happiness of one another."

New Members

Klotz, Walter C., Los Angeles.
Williams, Norman H., Los Angeles.
Coffin, H. W., Los Angeles.
Barnes, P. Livingston, Los Angeles.
Nakaya, F. T., Los Angeles.
Vardon, Ernest M., Los Angeles.
Dodge, Wm. Wallace, Los Angeles.
Grant, Garnet B., Los Angeles.
Weitkamp, A. H., Los Angeles.
Albert, Walter, Los Angeles.
Cunnane, Thos. B., Los Angeles.
Ramsay, Robert E., Los Angeles.
Meredith, Harold H., Oakland.
Smith, Lee E., Oakland.
Rude, Anna E., Washington, D. C.
Brown, Robert, San Francisco.
Penfield, Perle P., San Francisco.
Frankenheimer, J. B., San Francisco.
Wing, P. B., San Diego.
Lee, F. A., Chula Vista.
Brown, Chas. W., San Diego.
Warren, John W., National City.
Butterfield, A. D., National City.
Ogden, Geo. W., Napa.
Vollmer, H. W., Loma Linda.
Bullington, Perry F., Chico.
Meyer, E. L., Chico.
Newbold, E. H., Oroville.
Sabichi, Geo. C., Bakersfield.
Veon, J. E., Bakersfield.
Torrens, A. S., Hanford.
Selleck, E. E., Stockton.
Dobson, Geo. H., Santa Ana.
Marsden, S. A., Orange.
Inman, M. M., Los Angeles.
Beatty, J. David, Los Angeles.
Frisbie, Chas. P., Los Angeles.

Deaths

Blackledge, L. N., of Orosi, Calif. A graduate of Pennsylvania Medical University, Philadelphia, 1880. Licensed in California, 1900. A member of the Medical Society State of California. Was killed July 16, 1919, while driving in an automobile Car stalled on track in front of train.

Freeman, Clara M. A graduate of California Medical College, California, 1885. Licensed here 1885. Died in San Francisco, July 12, 1919.

Dodge, Washington. A graduate of University of California, 1884. Licensed same year. Died in San Francisco, July 2, 1919.

California State Journal of Medicine

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Yuba-Sutter.....

Contributors, subscribers and readers will find important information on the sixteenth advertising page following the reading matter.

VOL. XVII

SEPTEMBER, 1919.

No. 9.

LOCATIONS FOR DOCTORS

The physicians of California who have been in service are rapidly returning to their homes. Many of them are seeking new locations. A general shaking-up of locations is in progress. There are many opportunities for practice in the smaller towns and rural sections, especially, and there are many places where physicians are urgently needed. It is requested that every person knowing of any such need or opportunity for practice will communicate with the office of the State Medical Society, as this office is in a position to place many doctors throughout the State if only local needs can be recognized. It is a matter of service to these communities and also of service to the returning physicians who wish to lose no time in re-establishing themselves. It is the desire of this office to serve both. Will you assist?

THE BOY SCOUTS' OATH

The Boy Scout promises on his honor

1. To do my duty to God and my country, and to obey the Scout Law,
2. To help other people at all times,
3. To keep myself physically strong, mentally awake, and morally straight."

How is that for a program for the average busy physician? This latter has all too little time to consider questions of morals and ethics. He is not prone from experience or training to dip into the vagaries of theological theories. He may never have had the opportunity in school and college to formulate for himself some sort of rational explanation for the existence of things. He has a strong consciousness that he *ought* to do certain things and often feels the need of some one to tell him where the *ought* really lies. In other words, in

the busy hurry of men and affairs, in the press of urgencies inherent in the life of every physician, there is no time for more than running orders of the briefest and most practical nature when it comes to the question of a daily ethical and moral program. Try the Scouts' oath. It ought to fit the average doctor pretty well and make him a good scout if not a Boy Scout.

LINES OF EFFECTIVE PREVENTIVE MEDICINE

According to the summary of mortality statistics for 1917 by the Census Bureau, twenty-seven states, forty-three cities additional, and the District of Columbia, containing all told, 73 per cent. of the population of the United States, now comprise the registration area of the United States. Over a third of the recorded deaths in this area were due to cardio-renal disease, apoplexy, cancer, enteritis, influenza, diabetes, diphtheria and bronchitis. Here is a group of diseases on which preventive medicine should concentrate. Epidemic diseases with known or unknown bacterial causes are rapidly being rendered controllable.

A recent measure (Harding-Fess bill) introduced into Congress calls for the expenditure under the Federal Public Health Service of five million dollars in the investigation "of influenza and allied diseases in order to determine their cause and methods of prevention." This bill should pass without delay. There is reason for expecting a recrudescence epidemic of influenza this coming winter. This sum is paltry indeed, compared to the loss in life and money from another epidemic.

The other diseases in this list should share in special attention from investigators, both clinical and laboratory. When medical science has determined disease causes, the way is open for their complete eradication. Not only should popular interest

be centered on right living for health, but it must of necessity devote sufficient attention to eradication of known disease causes and control of disease carriers.

NEW YORK PHYSICIANS TO FORM UNION.

The news columns from time to time have contained startling statements of the plans and performances of New York physicians, but the most astounding statement was contained in the following press despatch under date of August 13th:

"Hugh Frayne, labor organizer, said he had been asked to organize a physicians' union to affiliate with the American Federation of Labor."

We have watched with growing concern and fraternal interest the fruitless experiments which some of our New York brethren have been making with ineffectual makeshift machinery in their commendable efforts to ward off impending dangers to the profession.

The medical profession in some localities has apparently become so accustomed to being exploited that it has developed extraordinary tolerance for encroachment. Due to lack of preparedness and organization it has become a passive profession. We have long wondered how long and far the New York profession would retreat until it felt forced to say, "thus far and no further."

But if the press despatch above quoted represents its remedy, we predict that "it has o'erleaped itself and fallen on the other side." An affiliation with the American Federation of Labor or any other entangling alliance with any organization or association whose purposes cannot coincide with the ideals of the medical profession will not solve the difficulties that confront or the dangers that encompass the medical profession in New York and elsewhere.

The broad powers of membership control and the potent measures of enforcing their rules, which the union finds necessary, could not be applied to or observed by the medical profession without sacrificing the essential character of our profession. The doctor cannot be master of his time or have his time mastered. It belongs to the community that he serves. We can start or stop the soulless things of metal in harmony with the whistle's blast. The hours of the artisan and mechanic can and should be well regulated. Their work can be figured with mathematical accuracy. But the work of the doctor is contingent upon the ills that flesh is heir to that come and go during life's uncertain voyage. The milk of human kindness, that is always administered by the true doctor, cannot be measured or restricted by hours, molds, schedules and other mass regulations.

When the doctor ceases to be the good Samaritan and attempts to measure the time during which he will bind up the wounds of the world, he will forfeit golden public opinion and the sacred trust which all sorts of people now place in him. "If the salt lose its savor, wherewith shall it be salted? It is good for nothing any more but to be cast out, and to be trodden on by men."

Once you limit the spirit of sacrifice, you sacri-

fice the spirit which makes the profession noble. The medical profession is not a trade and cannot be regulated as trades are. The devoted duty of the doctor to the patient cannot be abridged or subordinated without injury to the public.

The imperative need for organization to save the family heirlooms from political burglars has been pointed out and urged by the keen-sighted men of the medical profession for years. Here in California the medical profession has not only recognized and discussed the need of organization but it has formed one. Earnest men and women have leagued together and are serving the public as well as the profession through an independent non-partisan, non-commercial organization—The League for the Conservation of Public Health. The League is now in its second year of fruitful endeavor, and it has enlisted the enthusiastic interest and active support of the best medical talent and provided the means and machinery through which it may speak and act most effectively in concert.

The medical profession of this state is in fullest harmony with the worthy aspirations of union labor as exemplified by its representative leaders here in California. Modern medicine has brought to industry a link that has been missing between labor and capital. Neither labor nor capital can have more disinterested friends than the devoted doctors, for medical science confers its benefits impartially on all. The medical profession must remain independent of the organizations of labor and capital in order to render this impartial service for the betterment of both.

New York and other states need an independent co-operating organization like our League for the Conservation of Public Health.

SYPHILIS MUST GO.

According to the American Social Hygiene Association, syphilis is wide-spread in Russia. In some villages every man, woman and child is infected. In the Parafiew District, consisting of six villages with a population of 9,500, only about five per cent. of the people are not syphilitic. In such cases syphilis ruins the people mentally and physically.

Sixty per cent. of syphilis in Russia is acquired through lack of decent living conditions and a gross ignorance of personal hygiene. The disease has largely lost its characteristics as a sexual disease because it is so generally contracted outside of sexual relations.

How does this affect us? It proves that the people of this country must know the facts—must realize the dangers of infection. Venereal disease sufferers should understand the absolute necessity for scientific treatment—and, above all, appreciate the need for preventing the further spread of syphilis.

It is estimated by authorities that from ten to eighteen per cent. of our population is syphilitic. Many infections are acquired innocently here, as in Russia, but by no means to so large an extent.

The American plan for fighting venereal diseases depends on education—telling the whole pub-

lie all of the facts—how the diseases are contracted—how and why they must be promptly treated, and of the results if they are neglected.

MEDICAL EXAMINATIONS.

Few graduates of medical schools have failed to comment at some time on the imperfect co-aptation of medical examinations to the problem of determining if a certain student has learned enough to make a safe and fairly efficient doctor. The same problem arises in the examinations of state medical examining boards. How shall it be determined that a certain applicant can be released upon the public with assurance of safety to the public and benefit to the sick? We are not now concerned with the further problem, equally crucial, as to how it shall be determined whether representatives of various faddist and short-cut methods are safe to be entrusted with the function of healing. We are limited to consideration of what constitutes a fair and adequate examination for a medical student or a doctor.

Dr. George Blumer, dean of the Yale Medical School, discusses this topic with eloquence and forethought. He summarizes the subject under six points which should be comprehended in each examination. The first is knowledge of the technical language of medicine, and is easily covered by questions requiring definitions of terms, etc. The second is ability to express ideas graphically. For instance, draw a diagram showing the relationship between diseases of the bile passages and the pancreas, and supply letters and legends to accompany. Ability to interpret ideas presented in graphic form is required in a question requiring discussion of a temperature chart, for instance. Critical ability is one of the most important points covered. It can be comprehended in a question, for instance, requiring discussion and expression of opinion on an extract from a medical magazine article containing both truth and fallacy. Real critical ability will appear in such a discussion. The fifth point is ability to reason from facts and is comprehended in the presentation of a clinical history with important laboratory and clinical findings. This the student is required to discuss for diagnosis and treatment. The sixth point is ability to express ideas in clear language and can easily be determined from the answers to the other questions.

Blumer allows 10 points for knowledge of technical language, 10 points for ability to express ideas graphically, 10 points for ability to interpret ideas graphically, 10 points for ability to write clear English, 30 points for critical ability and 30 points for ability to reason from facts. As he says, preparation of such an examination is a much more tedious and difficult matter than to assemble a few direct questions from immediate perusal of a text book. But this character of examination is applicable to any subject and repays in its correct gauge of the student's ability. It minimizes the importance of parrot-like quoting. It tests the examiner as well as the student.

There is no question that the present average method of conducting written examinations by state

examining boards as well as in medical schools can stand serious revision. Too often an injustice is done to the applicant and still too often an injustice is done the public. Teaching is an art and examining should become one also. A good teacher does not of necessity make a good examiner nor does clinical or research ability necessarily presuppose ability as a teacher or examiner. On the other hand, the minimum qualifications of an examiner should include technical familiarity with the best and latest data in his line. This applies to medical school examiners and especially to members of state examining boards. It is true that no one should be considered competent to conduct a medical examination unless he is familiar with the clinical and laboratory phases of his subject at first hand, and is fitted by experience and training in that subject. The profession of medical teacher and examiner is receiving needed publicity and methods need to be standardized here as well as in hospitals, clinics and private practice.

VACATION AND SOME EXPERTS

One of the unfailing and entertaining features of the California vacation period is the abundance of experts that come from the extreme heat of less favored climates to inspire the invigorating breezes and coincidentally the residents of California. Some evidently become so superheated that they are still full of calefied and non-luminous heat rays when they arrive here. They emit quantities of statistics that had better be omitted.

The easy confidence with which they declare their superiority might arouse resentment if we did not know from past experience that the next vacation crowd of experts will tell us how inferior and full of erroneous impressions this departing crowd is.

One of our very able and successful physicians after listening to several luncheons and dinners filled with health statistics and marvelous plans was asked what he thought of the performance. He replied, "You know, I never object to watching the pleasant process of decanting old wine into new bottles or new wine into old bottles. I enjoy seeing statistics on parade that are well prepared and disciplined and well handled. But when they are presented by some of your vacation experts that 'distinguish and divide a hair 'twixt South and Southwest side,' I confess that I am inclined to follow Mark Twain's example when he was overwhelmed by the moral statistician. You will recall Mark said, 'I don't want any of your statistics. I took your whole batch and lit my pipe with it. I hate your kind of people. You are always figuring out how much a man's health is injured, and how much his intellect is impaired, and how many pitiful dollars and cents he wastes in the course of ninety-two years' indulgence in the fatal practice of smoking; and in the equal fatal practice of drinking coffee; and in playing billiards occasionally, etc., etc., etc."

"Of course you can save money by denying yourself all these vicious enjoyments for fifty years; but then what can you do with it? What use can you put it to? Money can't save your infinitesimal

soul. All the use money can be put to is to purchase comfort and enjoyment in this life; therefore, as you are an enemy to comfort and enjoyment, where is the use in accumulating cash? In a word, why don't you go off somewhere and die, and not be always trying to seduce people into becoming as ornery and unlovable as you are yourselves by your ceaseless and villainous moral statistics.'

"I am convinced that these statistics must have been offered to Mark Twain by some vacation expert. The world cataclysm, which is subsiding, has produced an enormous amount of flotsam and jetsam which some are picking and adding up and presenting as normal statistics. One of the common characteristics of these masquerading Aladdins who are going around offering to exchange new lamps for old is a patronizing air towards the medical profession. It has often been observed that some who use the medical ladder to climb upward, 'once they attain the utmost round then unto the ladder turn their backs.' It requires a level head to preserve proper poise among the dizzy heights," concluded the Doctor.

EDITORIAL COMMENT.

There is no use in fighting the inevitable. It is true that the only argument against the north wind is an overcoat. But it is well to be sure the wind is really northern.

Argument seems unnecessary to signalize the importance of the passage by Congress of the Fess bill appropriating the sum of five millions for investigation of influenza and allied disorders. The loss of 500,000 lives in this country alone during the recent epidemic is warrant enough for such need. Determination of the cause of influenza will be followed by the same remarkable results which attended knowledge of the cause and manner of spread of malaria, yellow fever and typhoid. A recrudescence of influenza is to be expected this coming fall. Every public and private health agency should devote itself to this matter and to constructive preparation of a program of action in case of another epidemic.

At present the medical profession is organized on a basis of disease cure rather than disease prevention. This must change at the same time that diagnosis and treatment of special and individual diseases are improving and receiving more and more skilled attention. All public health work pivots on the doctor. He is invariably the one absolutely essential link which cannot be discarded. It is time that the public and the doctor himself recognize this relationship.

Complaints have been received in the State Society office that the State Medical Society roster of members, issued last month, does not contain the names of some doctors who feel that they should have been included. Attention is called to the fact that after March 1st those members of the society whose dues have not been reported to the office of the State Society are delinquent.

Original Articles

TECHNIC FOR THE REMOVAL OF DEAD TEETH.*

By JOSEF NOVITZKY, San Francisco, Cal.

For over five years I have been devoting at least half of each day to laboratory work and investigations in connection with the problems arising from dead teeth. The results of my investigations have repaid me so amply that I have constantly urged other dentists to devote some time to study and experiment, but with no appreciable success. Accounts of my findings have been published repeatedly.¹ These, I thought, would be thankfully received by other dentists who were unwilling or unable to devote any of their own time to independent research.

Instead, they were received at first with violent hostility. Many prominent dentists seemed to resent the fact that my findings did not accord with what had been taught to them and is still being taught to others in dental colleges. My own college offered me no encouragement, and so far as I know encouraged no one to test the truth of my views. One prominent dentist likened my methods to those of the ruthless Hun, but he was prepared to offer no good evidence that my methods were wrong. Opposition was not disappointing. It was stimulating and at times amusing. The disappointing thing was that no one among the thousands who opposed me seemed to be willing to devote a little time in gaining evidence either in favor of or against what I held forth as scientifically proved facts. In matters of fact, capable of clear proof or disproof, I was opposed by unsupported opinions exclusively.

My first encouragement came from Dr. Stanley Stillman to whom I am indebted for the opportunity of witnessing the work at the surgical clinic at the Lane Hospital, San Francisco, 1912. Dr. Stillman's help made it possible for me to acquire the basic surgical knowledge necessary to bridging the gap between surgery and ordinary dental practice.

My first opportunity to work in well-equipped modern laboratories came to me from Leland Stanford Jr. University. To Dr. F. E. Blaisdell, Professor of Surgery in the Medical Department of this university, I am indebted for the photographs of my anatomical work used in this article. To him I am also greatly indebted for invaluable

* Anatomical work done in the Laboratory of Surgical Pathology, Leland Stanford Jr. University.

REFERENCES

- 1 Pacific Dental Gazette—May, 1915.
- Transactions of the Panama-Pacific Dental Congress—August-September, 1915.
- California State Journal of Medicine—November, 1915.
- Pacific Dental Gazette—February, 1917.
- American Journal of Surgery—August-September, 1917.
- Journal of the California State Dental Association—November-December, 1917.
- Dental Items of interest—January, 1918.
- American Journal of Surgery—March, 1918.
- New York Medical Journal—March 23, 1918.
- Journal of the California State Dental Association—June, 1918.
- Journal of the National Dental Association—June, 1918.
- American Journal of Surgery—February, 1919.
- New York Medical Review of Reviews—February, 1919.
- The Dental Summary—June, 1919.
- The Dental Summary—July, 1919.

guidance and assistance in the research in which I am still engaged.

Of late, one by one, the things discovered and announced by me have been appearing in dental journals in the writings of other men. But only one man has seen fit to accord me a word of credit or commendation. This one exception is Dr. John S. Marshall, who confirmed the findings of my work on the inferior dental canal.

It was not to be expected, of course, that the great body of busy practicing dentists should immediately accept the fact that all devitalized teeth are dead and the fact that all dead teeth, no matter how or by whom they are treated, will be infected within six months of the time of devitalization, if they are permitted to remain in the jaws. The busy dentist naturally turned to the colleges and the men regarded as leaders of the profession. When he found them still teaching young men to devitalize and treat teeth, he felt perfectly safe in his behind-the-times methods. He found dental colleges not only unwilling to acknowledge the truth of definitely proved facts but also unwilling even to attempt to disprove them.

On the other hand, it was not to be expected that men who did accept my views should publish them as their own. It was certainly not to be expected that a dental journal should give space to an article emphatically claiming originality for something borrowed from me and already published by me in the same journal. The most

in the jaws after removal of a dead tooth may cause such absorption of the alveolar process as to make it difficult to construct a good denture. The author of the article had brought his wife to me for surgical advice and I had reported the case and pictured it in a slide in the American Journal of Surgery for August-September, 1917.² Here I pointed out that incomplete surgery had resulted in loss of Haversian bone and atrophy of the marginal ridges. In various other articles and addresses,³ some as early as 1915, I have shown how septic retention following incomplete surgery often results in such absorption of alveolar process and flattening of the alveolar ridges as to render the construction of an efficient denture very difficult. In my address before the San Francisco District Dental Society, Oct. 8, 1917, I exhibited plaster models demonstrating this fact. A photograph of one of these models is shown in the accompanying Plate 1.

An interesting side light is thrown on the ethics of dentistry by the consideration of the fact that the editor who was willing to publish the borrowed material claiming originality was unwilling to publish one of my articles, already in proof, unless I would call a dead tooth a devitalized tooth, his plea being that he wished to keep dental literature on a high plane of ethics.

At the present time all men who give the matter of devitalized teeth serious consideration should be willing to grant what I have been persistently maintaining for the past five years; namely, that every devitalized tooth is in every sense of the word a dead tooth, and that every dead tooth, no matter by what method and by what person it is treated, becomes infected within six months of the date of devitalization. When the dental pulp is removed and the apical foramen "closed," a tooth could receive nourishment only by means of or through the cementum which surrounds the root. Although some men still maintain that "between pulp inside and periosteum outside, there is a continuous chain of living plasma," I have shown that normal cementum in man is structureless. There is no way for blood or blood fluids to pass through it. In the careful pathological examination of hundreds of devitalized teeth I have not found a single one that, six months after devitalization, was not infected. No one else has been able to find one. In the face of such evidence, thinking men must accept as a fact the statement that a devitalized tooth cannot be retained in the jaw and aseptically filled without the occurrence of post-operative periapical infection.

One by one dentists and physicians are coming into agreement on the point that a dead tooth is a dangerous source of infection which cannot be retained in the jaw with safety. I have shown how dead lower molars caused inferior dental canal infections with drainage from the inferior dental foramen which resulted in tonsillar phlegmons, Ludwig's angina, and Bell's palsy; how

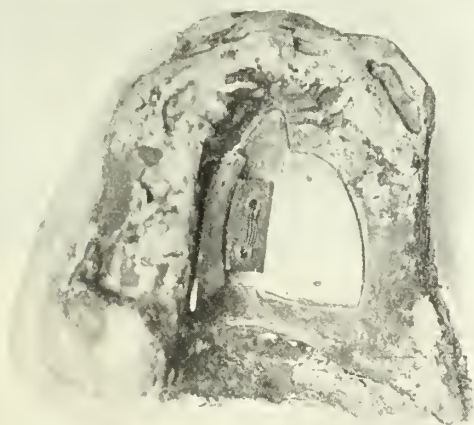


Plate I.

This is a plaster model of a palate in which septic teeth on the left were "pulled." On the right and the anterior portion septic teeth were removed by dissection, also a radical operation on the right antrum was performed. Witness the result: On the left the alveolar ridge has become obliterated through resorption as a result of incomplete surgery and septic retention; on the right rapid healing with some callus formation has followed thorough surgery. This cast shows how future plate work for mastication of food is simplified by thorough surgery.

prominent place in the Pacific Dental Gazette for May, 1919, is given to an article in which the author makes a special point of claiming originality for the view that infection remaining

² See Slide 24. American Journal of Surgery—August-September, 1917.

³ California State Journal of Medicine—October, 1916.

dead upper molars frequently resulted in septic collections under the antral membrane or in direct perforation of the antrum of Highmore. I have shown, moreover, the inadequacy of mere extraction or pulling of dead teeth on account of the septic granulations which often remain after extraction. Such granulations result in a low grade suppuration with dangerous systemic sequelae and such absorption of alveolar process as to render the making of an efficient plate extremely difficult. (See Plate 1.)

The safe removal of dead teeth, as I have demonstrated many times, demands a surgical operation, the technic of which I have frequently outlined. Now since dentists and physicians are coming to recognize the truth concerning dead teeth, it may be worth while to illustrate the technic of the operation by the following plates:

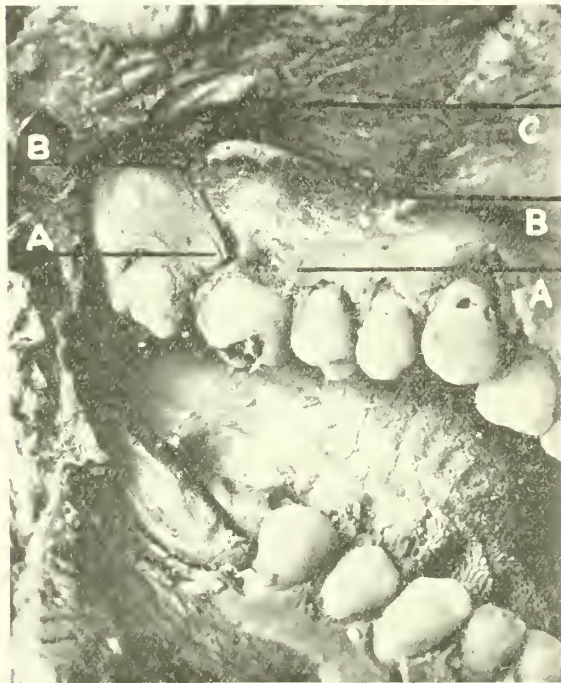


Plate II.

Plate 2 indicates how the incision in the gums should be made in the operation for the removal of the upper first molar. This incision should allow a generous margin of mucous membrane and periosteum at A in order to obviate post-operative recession of the soft tissues from about the necks of the teeth on both sides of the operative wound.

The terminals of the lines of incision are indicated by B. These may be extended out anteriorly and posteriorly if a larger approach is rendered necessary by unanticipated complications. The incision as shown would ordinarily be ample for the removal of the tooth and the necrotic alveolar process and for the exploration of the floor of the antrum immediately above the roots ends. The gingival edge of the flap, C, is pared after the incision has been made in order that there may be a freshly cut surface to be sutured to the lingual side of the wound at the

close of the operation. The periosteum and soft tissues composing the flap are lifted free of the bone and held back with a retractor.

Now that part of the outer plate of process which lies over the buccal roots is outlined with chisel and gouge and removed in one piece. The buccal roots are then exposed in situ in the alveolar process. Each buccal root should be cracked free from the root crown by a smart tap with mallet and chisel and hooked out side-wise. The tooth crown held only by the long lingual root is still in position. At this stage of the operation hemorrhage should be under control so that with direct access and vision the apical region of the buccal roots may be curetted thoroughly and examined for perforations into the antrum.

If no perforation leading from the buccal roots is discovered, the side of the lingual socket next to them should be enlarged with the gouge and then the remaining root with the tooth crown should be elevated from the socket. If a lingual perforation is discovered, the antral membrane may be left intact, if this is desirable, as the alveolar process is lifted away from that membrane. Frequently, pus or exudate from a dead



Plate III.

tooth will drain through the thin floor but will not perforate the membrane. If this is the case, the membrane will commonly be found to be much thicker and more fibrous than in its normal condition. There will often be found polypoid tissue involving the antrum cavity immediately above the dead roots.

After all the infected granulation tissue and necrotic debris have been removed, the edges of the opening in the bone should be smoothed with chisel or curette, since sharp bone edges retard post-operative repair. Finally the periosteal flap, C, should be sutured to the inner margin of the mucous membrane.

In Plate 3, A indicates the lines of incision for the removal of a lower right second bicuspid. B is the flap of mucous membrane and periosteum. C indicates the root of the bicuspid after the

outer plate of the mandible has been cut away. The tooth is shown ready to be removed sideways through the opening in the outer plate.

Plate 4 pictures a tooth socket after the tooth has been removed. It shows how there is direct access to the pathological cavity at A, which is in communication with the inferior dental canal.⁴ The stretched and tightly adherent membrane, B, is seen surrounding the orifice of the mental foramen. This membrane incloses the nerve and blood vessels in its sheath.

In this case the incision is large and the soft structures over the vital roots anterior to the second bicuspid are stripped back in order to permit careful dissection and the stripping back of structures surrounding the mental foramen, and in order to make it possible to work without severing the mental nerve or blood vessels. If any structures which are no longer normal are

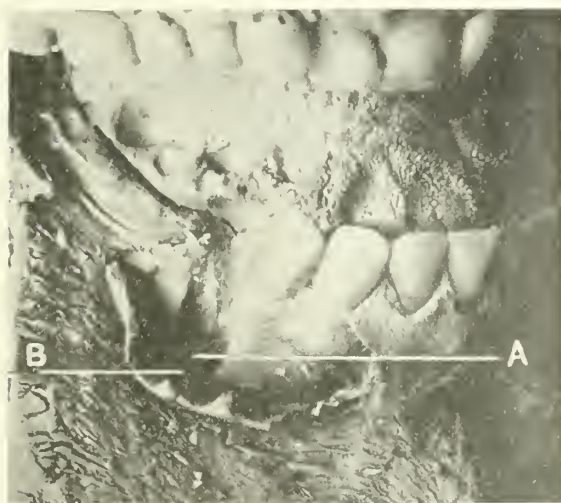


Plate IV.

allowed to remain, they will continue a low grade suppuration and result in atrophy of the surrounding bony parts and in secondary metastatic sequelae. Hence it is commonly necessary to pick away bone forming the wall of the inferior dental canal so that no abnormal structures will be allowed to remain.

Briefly, then, the operation which I have been advocating for the past five years is as follows:—First, the region to be operated is anesthetized with novocain. This permits the work to be done with no pain to the patient and very little shock.

Next, a triangular flap of the gum and periosteum with its apex at the gingival margin of the necrotic root is raised and pulled back. This exposes the outer plate of bone for a little more than the length of the tooth root. But it may be necessary to strip down the gum and periosteum

from the healthy tooth on each side of the necrotic one in order to gain more space for operating. In this second case special care must be taken in suturing the gums back to their original position at the end of the operation.

Now part of the outer plate of bone is removed with a chisel; and the cancellous bone and tooth root lie exposed. The tooth should be hooked out sideways before apical curetting and exploration, if the part of the buccal plate which has been removed does not extend so far as the end of the tooth root. The tooth may be hooked out either before or after apical curetting and exploration, if the part of the buccal plate over the entire root length has been removed.

The tooth and the alveolar septum in multi-rooted teeth should be removed with the chisel, if a cavity is discovered beneath the tooth roots.

When the antrum is involved, the inner plate of bone in the upper jaw may be cut away enough to make it possible to draw the inner flap of mucous membrane and periosteum over to meet the outer flap. But whenever possible the inner plate should be left intact. Bone regeneration does not take place so well in the inner as in the outer plate, when both plates are removed.

An antrum incision is sutured and the cavity is drained through the natural ostium into the nose. Gauze packings should not be used in this work except as mechanical blocks to hemorrhage. If irrigation is necessary, the cavity may be thoroughly irrigated five or six days after operation by means of a canula inserted through the flap from the mouth or through the thin plate of bone under the inferior turbinate of the nose.

In some cases diffuse infection in the Haversian bone will be found associated with chronic changes emanating from dead teeth. Gutta percha cigarette drains, in such cases, will allow serums and discharges to escape until time for the wounds to be closed.

The incision for extensive surgical work on the antrum should take in several teeth on the affected side. In order to gain space adequate for operating it may be necessary to strip back the tissues from both vital and dead teeth. I have under preparation a special paper on antrum cases and my operation on the antrum of Highmore.

An operation for the removal of a dead tooth, especially an operation for the removal of an upper molar and the exploration of the antrum floor or the antrum, like any other surgical operation, should not be performed by one who lacks surgical training and experience. The ordinary dental college offers no opportunity for such training or experience. In some dental colleges, indeed, the professors themselves seem to have arrived at that pleasant stage of anility in which anything new is regarded as harmful and undesirable. They manifest the ultra-conservative tendency to insist on teaching others to think and do precisely as they were taught to think and do. With every indication of self-confidence and self-satisfaction they still lead young men to slaughter teeth and then to treat and fill the dead bodies in spite of clear proofs of the dangers of such practice.

Head Bldg.

⁴ California State Journal of Medicine—November, 1915.

Transactions of the Panama-Pacific Dental Congress—August-September, 1915.

The Pacific Dental Gazette—February, 1917.

American Journal of Surgery—August-September, 1917.

Journal of the California State Dental Association—November, 1917.

New York Medical Journal—March 23, 1918.

⁵ See Pacific Dental Gazette—May, 1915. Here I called attention for the first time to inferior dental canal infections caused by septic teeth.

THE SPECIALTY OF OBSTETRICS; ITS PRESENT STATUS; ITS POSSIBILITIES AND ITS IMPORTANCE.*

By HENRY P. NEWMAN, A. M., M. D., F. A. C. S.,
San Diego, Cal.

What I have in mind to say in response to the invitation of your secretary to appear upon this program, is the outgrowth of a discussion which took place in New York in June, 1917, at a joint meeting of the Section on Obstetrics, Gynecology and Abdominal Surgery and the Section on Nervous and Mental Diseases of A. M. A.

At that meeting Dr. Arthur Stein, F. A. C. S., New York called the attention of his hearers to the very great responsibility resting upon practitioners of obstetrics for the prevalence of serious brain lesions due to faulty delivery, particularly to prolonged labor with contracted pelvis, with compression of the child's head, contusions and other injuries.

He charged the obstetricians with negligence in the use of forceps and with lack of proper appreciation of the seriousness of the situation both as regards the individual and the state.

In the discussion which followed there was quite general agreement as to Dr. Stein's premises, which, as a matter of fact had many times previously been put forward by men in the same field. It is no new fact that so many women are sacrificed every year to the incoming generation and that so many babes are lost or maimed in body or mind, that apprehension of the event and the future is a common attitude among parents.

Long ago I pointed out how large a percentage of life was lost in labor; seven per cent. mortality for infants it was then, and over fifty per cent. morbidity for mothers; and though there has been advancement in the interest of the child to reduce birth-mortality for the infant to around four per cent., there seems to be still an untouched area of danger for the mother which it is the privilege, as it should be the responsibility, of the science and art of obstetrics to clear away.

At the meeting to which I allude, speaker after speaker corroborated the statements of the essayist as to the injuries inflicted upon the race by the neglect of scientific handling of this momentous period of women's physiologic life, but I was impressed by the fact that few seemed to be conscious of the injustice of making this unfortunate situation an arraignment of practitioners of obstetrics, and it is in defense of that small but worthy group that I am moved to offer these remarks, as well as to point out the way to a remedy well within our reach.

I say the group of men at whose door the faults of obstetrics are thus unwarrantably laid is small, and I am myself astonished at the figures which show comparison between those who have undertaken the practice of this branch with sufficient exclusiveness to class themselves as obstetricians solely and practitioners of all other branches.

I have only approximate data to give you, as

taken from the rosters of various special societies, though I do not know where one could look for better data. The proportion reads something like this: In the four representative cities of the East, namely, New York, Philadelphia, Boston and Chicago, a society which registers 356 specialists in surgery, there are twelve who call themselves exclusively obstetricians; and in the same cities the American Medical Association, with 516 registered as surgeons, there are twenty-four obstetricians.

When we take this percentage and set it over against the entire membership of the A. M. A., the figures become nothing short of appalling, and the twenty-four obstetricians practically disappear from the reckoning when any attempt is made to fix the responsibility for the faulty obstetrics of the day. Obviously it is not they who are doing the work for our suffering communities, and I appeal again as I appealed in the discussion of Dr. Stein's paper for a reconsideration of this whole subject, and a placing of the blame where it belongs and where the remedy should be applied.

Why then this neglect of a specialty, manifestly one of the most useful, most broad and inclusive of the greater branches of medicine, as it is by all odds one of the most attractive and satisfying in its rewards? To answer this question we must look at the status of the art in public appreciation; for, after all, it is the attitude of the laity that determines largely the bent of the practitioner.

We shall insist, however, that the profession is not without influence in the matter of this public attitude, but accepting the facts as they are admit that there is no specialty about which there is so widespread a misconception as this.

Everybody is doing, has always done, obstetrics, and this continuity of common participation is one of the hardest things to break. In a short lifetime, with other, better defined, more recently organized specialties opening before him, the doctor hesitates to stake his future on a career in which associations are so indiscriminate and about which clings so much of old custom and superstition or ignorance. One dislikes to be disputing the ground with midwives or poaching upon the broad preserves of the general practitioner.

The situation is rather different with the other specialties. Most of them may be said to have grown out of the advancement of the science of medicine as research and study brought ever new knowledge of disease manifestations; as new names for old lesions seemed to give distinction to the branches making the discoveries; to make them in a way creators of new science. But with obstetrics one is not concerned with finding a new disease.

It is not the elimination of a pathologic process which should be the preoccupation of a practitioner of this specialty, but the safeguarding and superintending of what should be the most normal of all life functions. And around this function gathers the history of all the worst forms of accumulated ignorance and malpractice, and still vitally connected with its practice is a discouraging mass of all the errors and misconceptions still extant.

The general public has its inherited ideas of child-

*Read before the Forty-eighth Annual Meeting of the Medical Society, State of California, Santa Barbara, April, 1919.

birth, and while pursuing a sort of existence inimical to the normal fulfilment of the function, goes on stubbornly ignoring the mischief that has been wrought and neglecting the care and preparation which widespread pathology demands.

If the profession does not take the lead in changing the situation, the day is coming when this will be recognized by all constituted commissions of public health and by all authorities occupied with the socialization of all reforms, as the most pressing concern of a people which wishes to save itself from extinction. But it has not been left to government authorities to suggest the great health movements which have brought us through former perils to where we are; it is the medical profession which has originated all such suggestions and the reward is with us in the acknowledgments of communities and states.

The moment for the inauguration of a new movement for better obstetrics is now. Not only must we insist upon it that general practitioners be better equipped for the emergencies which are met, too often without being recognized, in such a great percentage as our figures show, but we must launch a veritable campaign for such an understanding and appreciation of the importance of obstetrics as a specialty standing alone, as shall make it not equally attractive to any other, but to all the others together, since the scope of its application is universal.

When we speak of an insistence upon better practice on the part of those now doing the work we are demanding what it will be difficult for men in the press of modern activities to render. The blame is not so much on the lack of training and comprehension of the great specialty, it is on the attitude of mind that permits one to grasp at the performance of grouped specialties, any one of which is worthy one's entire time and attention.

When one considers the character of the pathology to which the pregnant and parturient woman is subjected, it is evident that unless one gives himself to it with enthusiasm and the best of his time, he is but skirting the edge of its possibilities.

There is hardly an aspect of medical science to-day that is not recognized as having its bearings on parturition, and more and more we are making discoveries that compel us to abandon the old easy methods of generalization and devote ourselves to the study, not of diseases in the mass but of individual cases, so large a part do the new vague menaces of anaphylactic manifestations, metabolic variations and varied tolerances play in all therapeutics and in prophylaxis.

It is as individuals that we must handle our cases, for it is the losing or the saving of the individual that counts, and in this specialty we have two lives in danger. And our concern is not only with the present but the future, for in every measure taken to ensure safe and healthy delivery of the child we are steadying the heartbeat of the age that follows us.

Gentlemen, it is for us to do our part in that movement which we are fond of calling *making the world safe for democracy*.

We have a vastly better opportunity than those who have the reforming of some broken product of faulty birth. It rests with us to begin such a campaign of education as shall render the public afraid to undertake so serious a step as the bringing new life into the world without the advice and supervision, during the entire period of gestation, of the ablest or best trained talent obtainable.

It is for obstetricians to remove from the way of the embryo those dangers which make his progress to birth the questionable thing statistics prove it to be. It is still more the duty and privilege of this specialty to oversee the condition of the mother from the first advent of maternal hopes until safe delivery of a healthy child, with satisfactory conclusion of the puerperium.

That this is not done by those at present intrusted with midwifery practice, the vast army of crippled, inefficient women doomed to defeat in life's struggle is sufficient witness. It does not need the actual figures of gynecic disease incident to childbirth to point out the great need of reform. The records of any gynecologist are a sufficient proof of the lack of obstetrical training.

These familiar after effects do not, however, represent the relation of faulty obstetrics to the general morbidity among women; they are for the most part local manifestations, and leave a wide margin of speculation as to the part played in the etiology of many systemic diseases by pathology in childbirth.

This illustrating fact can only be established by a system of careful and organized keeping of comparative records. This brings us to a consideration of the main remedy for the evils we have only begun to estimate. First, of course, there must be insistence upon greater skill and judgment on the part of the accoucheur, who might, by the way, well drop that title in favor of one that shall express more truly the function of a practitioner who presides over the entire period of gestation and the puerperium as well as labor itself.

Such cognomens were invented when the act of birth and the ten days following were the measure of obstetrical responsibility.

With this will come a propaganda for the education of a careless public in matters of such universal importance. There might well be a close co-operation between the work of obstetrical societies and that of the various organizations for child welfare and for public health. Statistics should be gathered from schools for backward and defective children, from asylums for the blind, from hospitals for the insane and the feeble-minded and the crippled.

But chiefly there should be kept at all hospitals complete records of all cases of childbirth, and obstetrical cases should no longer be permitted in any hospital not specially equipped with all that pertains to the most efficient practice of the obstetrical art. In this direction the recent movement for hospital standardization is destined to play an active part.

When the records of all cases are not only kept on file in every institution receiving patients for treatment, but are accessible at all times to the

public for study and comparison, the day which medicine has waited for so long will come.

Then the public will not risk life and health in the hands of those whose claim to popularity rests on the power of personal advertising, but the public will meet the profession in demanding that advisors and custodians of the public health shall have authoritative, documentary evidence of their ability to assume the grave responsibilities which attend upon human pathology.

And this evidence shall be furnished by those standardized hospitals whose case records are education; and by standardized hospitals whose case records are methodically and systematically kept to the last detail of therapeutic significance.

Hospital standardization will do more for obstetrics than any unorganized efforts could accomplish.

It will do away with false standards of merit; it will once for all clear the atmosphere of that lingering aroma of superstition which surrounds one who is supposed to be a "born doctor," and will establish the fact that it is trained skill which saves the patient. Hospital standardization will make it obligatory upon staff and institution to show that they can and will furnish one hundred per cent. efficiency in caring for the pregnant and puerperal woman and her offspring.

To recapitulate: The charge that poor obstetrics is to blame for a large per cent. of the evils and handicaps of childhood does not lie against the group of professed specialists in this science but rather against the indiscriminate group of practitioners of all ilks, licensed and otherwise, who engage in the art as a side issue to other specialties. The uninformed public should be educated into a proper attitude toward this most important issue. All that the profession can do to raise the specialty in importance and estimation and to make it a factor in the betterment of the race and in the reduction of mother and child pathology should be done. Effective aids in this campaign are the new movements in behalf of new methods in medical education and the standardization of hospitals; with particular emphasis upon the keeping of all records of obstetrical wards and hospitals and of private practice, to the end that by comparison and study and research into allied branches much of the reproach may be lifted from a science which still acknowledges so high a mortality in its proper field, and which has not yet taken any accurate method of estimating the vast morbidity among women and children directly traceable to error, mishandling and misconception of the natural function of childbirth.

1200 American Building.

The number of limbs lost in American industry every year is 26,000. This is six times the number of amputations among American soldiers in the year of war. As soon as we have made peace in Europe, can't we do something to prevent the wounding of workmen at home?—Vocational Summary.

PREGNANCY AFTER UTERINE SUSPENSION.*

By LUDWIG A. EMGE, S. B., M. D., from the Women's Clinic of Leland Stanford Junior Medical School, San Francisco.

Much has been written about the dangers to parturient women arising as the result of previous ventral suspensions or suspensions where ventral fixation has occurred. In spite of this, the operation, which time after time has been warned against, still enjoys popularity among some surgeons. The explanation may be twofold. These surgeons either have no occasion to attend the same patients in their confinement and consequently do not see the often unhappy outcome due to dystocia or they prefer the operation on account of the absence of technical difficulties.

We have had occasion to see several of these cases in the service of the Stanford Women's Clinic.

Case No. 69954. On October 29, 1918, I was called to see a clinical patient, 27 years old, who had been in labor for close to twenty-four hours without making any appreciable progress. She came to Lane Hospital after having been in labor for eighteen hours, giving a history of having had a ventral suspension done in 1915. She became pregnant a year after and aborted at five months, apparently without any ill after effects. Her pelvic measurements were normal. She was about at term according to the abdominal measurements. On examination a midline scar was found on the abdomen. The foetus was in a transverse position with the head to left and the back anterior. Pains were long and severe. By rectal examination the cervix could not be felt. By vaginal examination it was found that the cervix was just above and to the left of the sacral promontory. The uterus was distinctly adherent to the scar anteriorly. There was marked posterior sacculation of the fundus. Labor pains were entirely futile as far as dilatation of the cervix was concerned. With the fixed uterus, the transverse position of the foetus and the marked displacement of the cervix, it was therefore deemed advisable to deliver by classical Caesarean Section. On opening the abdomen, it was found that the uterus was acutely ante flexed with a marked hypertrophy of the anterior wall. The latter was fixed to the abdomen by a band of adhesion 2 cm. thick and 3 cm. long which extended to the posterior upper border of the bladder. No attempt was made to resect this adhesion at that time. The uterus was incised to the right of the midline and a living baby delivered without difficulty. The hypertrophy of the anterior wall had an average transverse thickness of about 10 cm. extending downward to the cervix actually obstructing the uterine outlet. The placenta was situated posteriorly. It was removed without difficulty. The uterine incision was closed in three layers. The adhesion which was very firm was then dissected and the raw surfaces covered over. As soon as the uterus was freed it made a complete turn of 90° to the left so that the incision now was running on the posterior surface about parallel to the attachment of the left broad ligament. We concluded from this that the uterus had not only made this lateral version but also had swung around its long axis to the right as on a pivot. Since there was no other adhesion found on the uterus one may conclude that only the left side of the ventral fixation had held. The patient had an uneventful recovery.

*Read before the Forty-eighth Annual Meeting of the Medical Society, State of California, Santa Barbara, April, 1919.

A few weeks later another case developed serious dystocia which was attributed to ventral suspension.

Case No. 66145. She was an Italian woman of 38 years who first came under our observation in June, 1918. She was then five months pregnant. Eighteen years ago she had one uneventful delivery. Six years ago she was operated for a displaced uterus and a ventral suspension was done. Two months later she miscarried spontaneously. On examination it was found that her uterus was in acute antelexion and adherent to the abdominal wall with a distinct "cornuatum" of the fundus. Pregnancy was uneventful. Her pelvic measurements were normal. She entered the hospital one hour after her labor began. Examination still showed a distinct indentation of the fundus with the formation of two "horns" so to speak. There was a marked sacculcation of the upper posterior part of the uterus. The focus presented in L. S. A. The cervix was 2 cm. dilated and after a few hours of very severe painful labor and slow progress the buttocks engaged. There was continuous bleeding but not enough to become alarmed since the patient remained in a good condition. Labor was exceedingly slow but ultimately ended normally.

These two cases gave the stimulus to investigate the records of the Stanford Women's Clinic from 1912 until now as to outcome of all deliveries following operations of any sort. Only those following suspensions will be reported here. There were thirty-five of such cases. Of these, the types of suspension were known in sixteen instances, thirteen having been performed in this clinic as follows: Five Webster, five Gilliam, two Coffey and one Kelly-Neel suspension. The remaining three were known ventral suspensions performed by general surgeons of the bay cities. The nineteen unknown types could not be diagnosed except for two in which the uterus was in the typical position of ventral suspension and fixation.

None of the patients had given birth to full-term children since their operation so that we have actually witnessed their behavior in their first post-operative labor.

As far as pregnancy is concerned none of the cases had undue difficulties due to abdominal distress, though two of the Gilliam, one of the Coffey and three of the unknown types complained of some lower abdominal pain during most of their period of gestation. The table presented, records the type and number of the suspensions and the labor experienced.

TYPE OF OPERATION	NO. OF CASES	TYPE OF LABOR				
		Abortions	Normal	Severe long	High forceps	Caesarean Section
Webster	5		4	1		
Gilliam	5	2	3			
Kelly-Neel	1		1			
Coffey	2		2			
Ventral	3			1	1	1
Susp. Ventral.	2			1	1	
Unknown	17		10	4	2	1
Results	55	2	20	6	4	2

In comparing the labors on this table we see that thirteen of thirty-five or 37.1-7% had dystocia, seven of which or 20% had to be delivered by operative procedures in order to prevent loss of lives. This is an extraordinarily high percentage of operative interference compared to the usual run.

It is also plain that the ventral suspensions caused trouble most frequently. It perhaps will emphasize the futility of this operation during the child-bearing age if the remaining three cases are cited briefly:

Case No. 38095. In 1917 we took under observation a primipara of 19 years who shortly after an abortion at two months had a ventral suspension performed. Her pregnancy was fairly uneventful except for slight abdominal pains. The foetus was in a normal position when labor set in at term. After about ten hours' labor with very little progress the patient passed a large clot. Upon careful examination it was found that the foetal head, in spite of a normal pelvis had not engaged, that the uterus was sharply antelexed and that the labor pains would force the foetal head against the promontory. Figuring that labor pains would not be efficient to dilate the cervix, a Voorhees bag was introduced. It was expelled after three hours. Still there was no engagement of the head in spite of 8 cm. dilatation. Version and extraction was therefore considered. This was attempted by one of the senior members of the staff but could not be effected since the membranes had ruptured and the uterus was tightly clamped down on the baby. With abdominal pressure the head was forced into the brim and forceps applied in this semi-floating position. After marked difficulties a dead child was delivered forty minutes later. The placenta was implanted low and apparently had separated prematurely. The patient made an uneventful recovery.

Case No. 60705. A patient of 33 years who had an abdominal operation performed one year previous, after the birth of her sixth baby, came under our observation in November, 1917. She was then four months pregnant. From the marked antelexion of her uterus it was judged that the laparotomy consisted of a ventral suspension or a suspension in which partial ventral fixation had taken place. The patient was lost sight of, living in the Latin quarter and was not seen again until she had been in labor for nearly twelve hours. She was then attended by a midwife, who, after a haemorrhage of about 500 cc., had advised the patient to seek medical assistance. The patient was transferred into Lane Hospital, since, by rectal examination it could not be made out definitely whether a placenta praevia was present. There was no further bleeding and labor seemed to progress slowly. After four hours of very slow labor a member of the senior staff diagnosed placenta praevia lateralis on vaginal examination. The membranes ruptured spontaneously and a fairly large amount of bleeding occurred. Version and extraction was performed which was found to be exceedingly difficult on account of the

antelexed position of the fundus. A dead child was delivered and the uterus packed on account of placenta praevia. The patient made a fairly uneventful recovery.

Case No. 30650. A nulliparous patient of 25 whom we had advised suspension of her uterus for retroversion and sterility in 1915 submitted

to operation in another hospital. Having had abdominal pains she returned to us and judging from the position of her uterus we concluded that a ventral fixation had taken place. We could not ascertain whether this had been done intentionally or whether it was subsequent to a uterine suspension. The following year she became pregnant and went through an uneventful pregnancy except for abdominal pains but her uterus remained fixed. At term she was admitted to the hospital after seven hours of labor. The anterior lip of the cervix was greatly hypertrophied preventing a firm engagement of the head. The external os was 2cm. dilated. After four hours the head became engaged in L. O. P. and incomplete flexion. From this time on, there was very little progress. The cervix dilated gradually and after severe labor of ten hours more, it was found completely dilated. Still the head did not make any satisfactory progress in spite of normal measurements of the pelvis. With each pain the head seemed to be pressed against the sacrum rather than downward in the axis of the birth canal. After considerable difficulty the large anterior lip of the cervix was pushed up high enough to let the head descend sufficiently to rotate it anteriorly. A living baby was then delivered by a difficult high forceps operation.

This is not the proper time to review the literature on this subject since this paper is intended solely to report the observations made in this clinic. Speaking in general, ventral suspension and its commonly present companion ventral fixation has been blamed for almost anything in the line of obstetrical pathology—for instance, a great number of spontaneous abortions, bladder disturbances, painful pregnancies, persistent and excessive nausea, placenta praevia, postpartum hemorrhages, atypical presentations due to distortion of the uterus, long, and commonly difficult labors with their operative interference, the inability of the cervix to dilate on account of faulty anatomical position, the early formation of Bandl's ring and the dangerous thinning out and sacculation of the posterior wall of the fundus. In ventral fixation the uterus becomes acutely anteflexed with the progress of gestation. This necessitates the use of the posterior wall of the uterus as a gestation sac. This in turn leads to dangerous thinning posteriorly and occasionally to rupture of the uterus. In turn the anterior wall of the fundus and anterior lip of the cervix become so greatly hypertrophied that they may act as an obstructing tumor. Then again, the cervix is displaced in such a way that it may stand above and to one side of the promontory. Such a position naturally throws it out of the axis of the birth canal and the dilating factors, to wit, the amniotic sac and the presenting part, have not the power to dilate the internal os but exert their forces upon the portion of the uterus anterior to the cervix.

Our own observations bear out a good many of these claims and we therefore join those who heartily condemn this type of operation as unjustifiable during the child-bearing age. From time to time, advocates of the operation have claimed that the untoward results are the consequences of technical errors. They advise that the uterus be suspended by passing the sutures through the top of the fundus in such a fashion that it would suspend the organ but not fix it to the abdominal wall. It has been further claimed that adhesions

created by this technique are never firm enough to complicate labor. Still, we find that such adhesions may overdevelop and convert the suspension into a fixation. No suspension operation is entirely devoid of danger from the obstetrical point of view and time after time cases are reported where faulty technique, lack of operative skill, an increased vascularity of a puerperal or pregnant uterus, suppuration of the abdominal wound have caused unexpected fixation. That this is more commonly seen with the ventral suspension is well known and that in spite of any technique employed. I dare say that modern surgeons have abandoned this latter operation in favor of such types where the round and utero-sacral ligaments are used as the suspending medium. Under ordinary circumstances these latter types, too innumerable to be cited here, do very rarely or not at all give rise to dystocia. It seems that the shortened ligaments maintain their tone and elasticity during pregnancy in contradistinction to adhesions which intensify rather than stretch under the same circumstances. Of late, suspensions have been reported where the round ligaments are split lengthwise to permit plication, in other words, the broad ligaments are shortened. In this type there must be a good deal of strong scar tissue formed in the broad ligament and whenever we have to deal with this, theoretically, we should expect trouble for the rising uterus. Personally, I have seen two cases lately where such ligament splitting operations had been done and where miscarriage occurred at five months in either case after quite a painful gestation period. Since there was no other reason, I permitted myself to conclude that excessive scar tissue prevented a rise of the uterus in proportion to the growth of the foetus resulting in stimulation of expulsive contractions.

I have no explanation to offer for the occurrence of two abortions in the group of five Gilliam suspensions. One was done personally by Dr. Montgomery demonstrating his modification before the A. M. A. Both pregnancies were uneventful and abortions came on spontaneously. There is no reason to believe that this operation produces an undue amount of scar tissue preventing the stretching of the round ligaments. This is perhaps more likely to happen with the Coffey suspension where the anterior wall of the uterus may become bound down.

As far as treatment is concerned it will depend entirely upon the conditions and will vary from simple corrective measures to difficult operative interferences depending entirely upon the attendant's judgment and skill. If the distortion of the uterus is such that birth is doubtful, classical Caesarean Section will always be the most hopeful procedure.

In closing it is again emphasized that child-bearing age and suspensions which may fix the uterus to the anterior abdominal wall are incompatible. The experience of five of such cases in the service of the Stanford Women's Clinic during recent years out of a total of thirty-five suspensions justifies this statement.

INFECTIONS OF THE ORAL CAVITY AND THEIR RELATIONS TO SYS- TEMIC DISEASES.*

By H. C. BAGBY, M.D., Santa Barbara, Cal.

It affords me great pleasure to present for your consideration a paper bearing on one of the very important subjects in physical ailments, namely, the relation of infected foci of the mouth and systemic diseases.

I wish, however, to state that I realize that there are many other sources of infection other than the oral cavity and its appendages. Any organ may be the focus.

The tonsil, the mammary gland, the kidney, the liver, the prostate gland, the ovary, or any organ of the body for that matter; but as we have one mouth with many appendages, any one of which may be the focus, with direct access to the blood stream, will deal principally with oral conditions, abscessed teeth, putrescent pulps and pyorrhea, endeavoring to show the connection of systemic troubles due to these infections.

It would be impossible in a short paper, to cover the entire field. I will therefore endeavor to show what constitutes infected foci of the mouth, their cause and effect, prevention and eradication, the most common of which are septic dead teeth, and those affected with pyorrhea. The term dead teeth had almost become obsolete, but is again coming into general use, as a pulpless tooth is a dead organ, and generally speaking is a menace to the health and life of the individual possessing one. The fact that they are tolerated by the economy, and do serve a purpose as masticating organs, is not a valid reason or excuse for their retention, any more than leaving any other infected foreign body in living tissue.

The dental profession is today groping in the dark, having discovered that teeth which were devitalized in the past are today septic foci. They are by careful aseptic technique attempting to prevent infection in the future, however it appears that there cannot be an assurance that a pulpless tooth may not at any time become a dangerous focus, no matter what aseptic precautions were taken at the time the operation was performed, the new technique not having given any great promise, and until a method is devised to revitalize hard tissue, no operator can truthfully promise that any dead tooth may not become the cause of the lowering of his vitality, or the indirect cause of death.

When we consider these septic teeth in the cancellous tissue containing the venous capillaries, and decomposition going on, generating a gas pressure, forcing the micro-organisms into the red marrow or venous capillaries we can at least imagine how systemic disturbances can result even from one dead tooth.

To substantiate my conclusions I will present some clinical histories by aid of the lantern, as well as some clinical cases, some essential points

in radiographic reading, a perfect cyst or granuloma, a broken cyst or no cyst at all, with diffusion into the cancellous tissue, one of the direct routes of the micro-organism into the circulation. Chronic oral infections are now recognized as the cause of many serious disabilities, about seventy-five per cent. of adults have been shown to have infections about the teeth, which have destroyed enough of the bone to be easily demonstrable (Arthur D. Black). W. D. Miller in 1891 called attention to the relationship of mouth infections to systemic disease.

Hunter in 1911 declared that oral sepsis was a prolific cause of many secondary effects. Billings, Rosenow, Gillmer and others have demonstrated Hunter's observations.

It affords a large field for further research, as to the cause of these foci, their effect, prevention and elimination, which requires an understanding of the anatomical relations and the physiological action of the tissues involved, the blood and nerve supply, the peridental membrane, the cementum, the tooth pulp, the cancellous tissue.

I know all of you know your anatomy and physiology as well if not better than I, but let us rehearse the blood and nerve supply.



Fig. 2

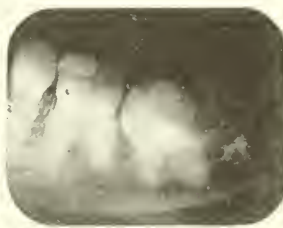


Fig. 3.

The gasserian ganglion from its anterior border gives off three branches, the ophthalmic, the superior and inferior maxillary nerves, the superior maxillary giving off the posterior middle and anterior dental, which with their accompanying arteries give off a branch to each root of the teeth, with branches to the peridental membrane, and the endostern, and are lost in the cancellous tissue. The same is true of the inferior dental which with its accompanying artery passes into the mandibular foramen and through the inferior dental canal to supply the teeth, the peridental membrane and cancellous tissue of the lower jaw.

The peridental membrane is a very vascular and sensitive fibrous tissue membrane, which holds the tooth in place, the arteries being derived mostly from the apical artery. The veins converge at the apex to empty into the apical vein, one of the direct sources of entrance of the micro-organism into the blood stream. (D-326.)

"The cementum has no circulation of blood, and is of itself an entirely passive tissue, and when stripped of the overlapping soft tissue it dies and since it has no circulation of blood, the dead portion cannot be exfoliated as is a necrosed bone. Practically all cases of chronic

* Read before the Forty-eighth Annual Meeting of the Medical Society, State of California, Santa Barbara, April, 1919.

mouth infections are due to alveolar abscesses or to pus pockets along the sides of the roots of the teeth (Pyorrhea) and in each case the necrosed cementum is responsible for the chronicity.

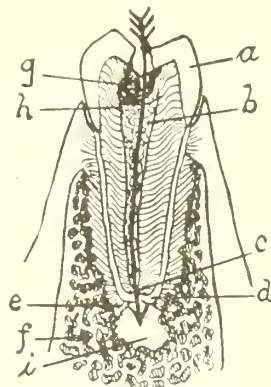


Fig. 326.

"The absorption by the cementum of the products of suppurative process rendering it non-chemotactic." (Blair). The pulp occupies the pulp cavity in the center of the tooth. It is made up of mucus connective tissue, blood vessels and nerves, and is directly connected with the periodontal structures through the foramen in the ends of the roots, affording another passage for the transmission of infection. (C, Fig. 326).

(F, Fig. 326.) Cancellous tissue is found in the interior of flat and irregular bones and forming the bulk of the extremities of long bones, containing red marrow, which consists of a delicate network of retiform connective tissues. The cancellous tissue is supplied with vessels derived from the periosteum, with branches to the marrow, the latter receives its main supply from the nutrient artery, the branches communicating with branches from the periosteal vessels. The venous blood enters the spaces of the red marrow where the current becomes very slow, and where the small capillary veins collect the venous blood, carrying it into and through the maxillary vein into the pterygopalatine plexus and thence to external jugular, etc.

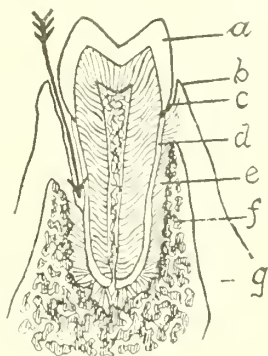


Fig. 327.

Shows remains of sac, where lower third molar had been extracted nine years before; which I opened up and curetted thoroughly and a neuritis of several years' duration was completely relieved.

(I, Fig. 326.) Photograph of tooth root in cancellous tissue showing granuloma, the continued enlargement of which causes pressure on the network of blood vessels in the cancellous tissue and the endostum, shutting off the circulation which causes the death and decomposition of this cancellous tissue, and from trauma or gas pressure the pyogenic membrane is often broken, allowing the pus to be forced into the adjoining tissue, where the capillaries take it up, carrying it into the veins, and to the heart, thence through the system to find lodgment in some weakened organ, or in the same way, an embolus to where not?

Surgically clean as we may be with our new technique, may we not have a septic condition or septicemia resulting from the micro-organism in the blood stream from an abscessed tooth? Certain it is if you inject a solution of adrenalin into the cancellous structure you will notice the effect on the heart in 5 to 15 seconds. That being the case, what may happen with your micro-organism in this same tissue?

Black reports apical abscesses in 47 per cent. of the devitalized teeth.

Duke in his late work, states, "In examining one thousand medical cases in office practice on whom dental films were made as a routine procedure, we found areas of bone absorption at the roots of eighty-one per cent. of all nonvital teeth." He also states that "The actual percentage of devitalized teeth which become infected is even greater as the number lost by reason of infection are not included."

These statistics are interesting from the fact that Black's observations were from supposed healthy people of less than forty years of age, while Duke's were from patients, the majority over forty years of age and having systemic troubles.

Why is this so? Why do we not have a systemic disturbance at once and in all cases? A fatal septicemia. Is it due to an autogenous vaccine? Antibodies or what?

A very common occurrence is the penetration of the floor of the maxillary-sinus by abscesses on the upper bicuspid and molar roots. And very often when exploring sockets following extraction of teeth having (blind) abscesses, the antrum floor is penetrated and it is not an infrequent occurrence to find the sinus filled with polyps or pus. How futile it is then to attempt to cure an empyema without first removing the cause, which is many times a septic tooth. The antrum drain in superior molars and bicuspid is not more frequent than the drain into the inferior dental canals from molars and bicuspid of the inferior maxilla. These conditions are overlooked in the majority of cases where extraction is resorted to and this oversight is often responsible for the persistence of systemic disturbances.

Whenever a septic tooth is extracted all pathologic tissue should be removed by curettement or a low-grade infection may continue indefinitely.

This curettement must be done skilfully and carefully but thoroughly. Faulty technique is responsible for many of the disappointments of the Medical Profession in failures of decisive improvements in patients where metastatic disturbances have been properly diagnosed. Areas in the cancellous bone are sometimes very large; as shown in lantern slide with wire further in cancellous tissue than the length of root. (2, Radiograph). The mere removal of the tooth root removes the initial cause of the bone absorption, but if the cyst or pericementoma is left, osseous degeneration will persist.

Pyorrhea, Cause or Causes, Prevention and Elimination.

For many years the medical, as well as the dental profession, has been endeavoring to find a cause for a disease commonly called Pyorrhea Alveolaris. It has been of late years attributed to bacterial origin. Few bacteriologists of note have not attempted to isolate a specific organism to which could be attributed the cause of this very widely distributed disease. No specific organism responsible for this disease has yet been isolated. Today we are brought face to face with the fact that the foci of infection within the mouth may be responsible, directly or indirectly, for the lowering of the vitality in an individual, making him susceptible to almost any disease, by lowering the resistance and natural defenses of the body.

If in its incipency pyorrhea is not caused by bacteria, to what must we attribute its cause?

The most important and the most frequent cause of pyorrhea is malocclusion. This malocclusion is not perceptible to anyone who is not looking for it. Teeth may appear regular, arches apparently nearly normal, but your carbon paper will show some tooth or teeth occluding out of line. It has always been a source of speculation why pyorrhea develops in early life without apparent cause. There are very few exceptions in which the cause cannot readily be shown to be overstrain on incline plane, less normal strain or a roughness at the gingivi, and these cases are numerous. It is not a rare thing to see cases in advanced stages of pyorrhea in people of twenty years of age.

How is this overstrain or malocclusion brought about. In one case it may be due to an abnormal long cusp which causes an interlocking, in another a pointed cusp striking too sharply approximately on the occluding teeth, in either event causing the incline plane on tooth or teeth, or between two teeth with which they occlude. Now I have stated that the majority of cases of pyorrhea were caused by conditions of this nature, and when we consider that the human jaw has a biting stress of from 150 to 300 pounds, one can readily see, when the stress of occlusion is brought upon one or more teeth, that this abnormal strain will surely cause an inflammation in the peridental membrane, which will raise the tooth slightly from its socket, causing it to loosen.

This incline plane may be due to a filling not adjusted according to normal contour of tooth or a crown with occlusion on one cusp. A normal

tooth will resist an abnormal strain if applied along its longitudinal axis in a straight line. But a slight deviation from the normal will cause the tooth to become loose: the constant stress on an incline plane will produce the inflammation in the peridental membrane and gingivae, naturally supuration and pus will follow, and a distinct pyorrheal condition will ensue.

Other mechanical causes are bands for crowns improperly applied, and unfinished fillings under the gum margin, causing continued irritation of the gum tissues and a lowering of their vitality to such an extent as to render them unable to ward off the bacterial invasion. Another cause is a roughened, imperfect marginal union of the enamel with the dentine, sufficient in many instances to cause aggravated cases of gingivitis and hypertrophy, sometimes termed "natural causes." They are readily curable by removal of cause, but develop into pyorrhea when left uncared for. The last and least numerous cause is salivary calculus, a lime salt of the saliva which is always deposited above the gum margin.

Aside from these causes I consider there are no other initial causes for pyorrhea. Though there are many predisposing causes. Anything that lowers the vitality of an individual will render him susceptible to disease in any part, neglect of mouth sanitation, over-indulgence in alcohol or other drugs, fevers, underfeeding, or overfeeding, any of which may be considered as predisposing.

The correction of these conditions, the thorough removal of the initial cause, will not fail to bring about a cure where the teeth are vital, provided one-third of the bony socket and adhering membrane is intact.

Hunter called attention of the medical profession to what he termed "The damnable American dentistry, mechanically," this same dentistry was to the casual observer beautiful but too often it was a "gilded tomb which worms did enfold."

The immortal Mackenzie claimed years ago "that the majority of infected tonsils were due to infection from the oral cavity, laying particular stress on the 3rd molar (wisdom tooth) in adult life, and that the removal of the 3rd molar would in many instances obviate the necessity of the removal of the tonsils, if the infection were not of too long standing, and the tonsils not too much infiltrated." I have seen many cases where slight pressure on the gum would exude one or two drops of pus. Now if all of the 30 or 32 teeth (as the case may be) exude two drops of pus several times a day, it would be a considerable calculable quantity. To be exact, reckoning on 30 teeth, two drops of pus exuding from around each one of them at least three times in twenty-four hours, would amount to 180 drops or three drachms, thirty times three drachms equals ninety drachms in one month, twelve times ninety equals 1,080 drachms or 135 ounces, which would be 1-1/16 gallons of pus in one year.

The destruction of enough tissue to produce that amount of pus would be no inconsiderable

factor in lowering the vitality. Then, too, we must reckon with the loss of blood, where you have a general pyorrheal condition, a slight touch of the gum will cause the loss of several drops of blood, which you would cause each time you brush your teeth and masticating your food three times a day, would probably double or treble the amount of pus, two or more gallons in the course of a year that would assist in lowering the vitality and body resistance. The pus from the pyorrheal condition taken into the stomach would destroy the mucous lining of the alimentary canal, causing gastritis, duodenitis, etc., and being taken up by absorption through the lacteals gaining access to the blood.

Result what not? Some years ago it was thought that these conditions in the mouth were due to uric acid, gout, rheumatism and other conditions. It seems now the reverse is true, that these systemic diseases are often due to infections of the oral cavity. The periodontal membrane is a very vascular and highly sensitive fibrous membrane, getting its supply from the apical vessels. Abscess forming under this membrane, the micro-organism could easily gain access directly to the bloodstream through the excessive capillaries; and the same is true in pyorrhea, (arrow, fig. 327, Blair's Surgery) the pockets around the teeth full of pus keep this membrane constantly bathed in it. These are the sources of infection, the loss of tissue and the loss of blood the cause of a lowering of vitality and body resistance. How absurd it is then to attempt to correct such conditions with pharmaceutical agents.

Within the last five years emetine hydrochloride has come into wide use, together with other preparations of ipecac. Four years ago I made a series of experiments with emetine, and at that time warned the profession against its use without first removing the cause. Again I wish to say, unless the cause be removed no medication will bring about a cure. I wish, however, to say, after the cause has been removed, that very beneficial results may be obtained by the internal as well as the local use of emetine; but the cure of pyorrhea is surgery and can never be anything else than surgery, for the reason that accumulations of foreign substances are to be removed, dead tissues must be curetted out; the operation calls for careful, skilful surgery which is guided by the touch alone.

Endeavors are made by dentists to remove calculus in the hope that the desired end will be gained. But if every vestige of foreign irritants were removed from a pyorrhea-affected tooth, a cure would not result unless the cementum were also carefully planed; the carious bone removed when necessary, and diseased soft tissue within the pocket withdrawn, and the occlusion corrected, without which failure is certain.

I will not quote further authorities as I know you have all kept up with the work of Rosenow, Billings and others, and I am confident that you will appreciate that the mouth constantly harbors micro-organisms, even in health. Also that you

are well aware that systemic diseases of many varieties are caused by mouth infection.

So widely are these conditions recognized today that in almost every magazine of medicine, surgery or dentistry, allusion is made to the cure of a certain case by the removal of infective foci. Billings claims that these infected foci have an elective affinity, and has in cases of arthritis, rheumatism, valvular lesions, neuritis, duodenal ulcer and appendicitis, taken the pus from an abscessed tooth, from an infected tonsil, and from the pyorrhea pockets from patients so infected, and injected it into the veins of rabbits, and in each case reproduced in the rabbit the rheumatism, the arthritis, the neuritis, the duodenal ulcer, the appendicitis or valvular trouble the same as in the person from whom he took the pus.

It is only reasonable, however, to suppose that if the anatomical destruction due to metastasis is too great, for instance, if a joint is obliterated, that the removal of the initial focus will not bring about a cure, but the removal of the primary focus will at least cause a cessation of toxic absorption and prevent further infection.

Very often physicians have told me of cases in which the teeth were removed, or the pyorrhea treated without apparent beneficial result. Perhaps the operation was not done properly. If pyorrhea treatment was indicated or if extractions were done, the curettement not thorough. Perhaps the anatomical destruction of the parts affected was too great or the physician too eager for immediate results,—sometimes recoveries are slow, particularly when nerve tissues are involved.

Certain it is that there must be a better understanding between physician and dentist. Many physicians are demanding that the mouths of their patients be "cleaned out," "cleaned up," and kept clean as preventive as well as a curative measure.

The diagnosis of septic teeth is not always easy. The usual means are, trans-illumination, heat and cold tests, the electric current, and the X-ray, all of which are at times deceptive. The nerve may have receded and will not respond to heat or cold, nor will it be readily affected by electricity, the X-ray may show a rarefied area due to an irritation or congestion of the tissues, caused by a tooth striking "out of line" or a filling in too close proximity to the nerve, which resembles the rarefied area where the pyogenic membrane (or sac) has broken and the pus having been forced into the cancellous tissue. The dentist drill will in such cases determine the vitality. If vital, by removing the irritating cause the area will usually clear up. On the other hand if it be non-vital and the infection has extended into the cancellous tissue as shown in Figure 2, with wire through the apex, then I think the only sanitary (if not sane) measure is extraction, with thorough curettement. The adjoining tooth in same figure shows a perfect unbroken cyst, and so long as it remains unbroken there is not nearly so much danger of systemic infection as in the proceeding, however I advise extraction and thorough curetting. The physician should famil-

iarize himself with these conditions. I have seen or known of many good vital teeth having been sacrificed on account of faulty radiographic diagnosis or lack of familiarity with dental radiography, which is a study of itself. In bone work 5-10 and 15 second exposures are used, while in dental radiography only $1\frac{1}{2}$ to $2\frac{1}{2}$ second exposures are used, which leaves the detail plain and distinct. If exposures are of longer duration you will have only a picture of the hard bony structure. I am also certain that dentists as a rule are going as far wrong in attempting to cure teeth that will never be anything but culture beds for pathogenic micro-organisms. In all cases we should have a complete physical diagnosis, including blood examination, differential count, and urinalysis, before and after treatment. The result would no doubt astonish and gratify both physician and dentist. I wish to present two cases of duodenal ulcer. In each case the diagnosis was made by very able men and confirmed by fluoroscopic examinations, one from San Francisco and one from Los Angeles. In each case they were told "you must have your mouth cleaned up, your pyorrhea cured before an operation." Case 1. Male, aged 59, (Los Angeles) came to me 18 months ago. Radiographs showed six abscessed teeth which I ordered extracted, the balance of his teeth in a very bad condition from pyorrhea which were treated and cured all becoming firm. He was pale and anemic. Six months later he had gained 20 pounds, was able to eat and digest wholesome food without distress. Six months later or one year after treatment was married and looked equal to the occasion. Case 2. Male, aged 47, (San Francisco) came to me a year ago with a severe case of pyorrhea; from around every tooth in his mouth pus would exude on slight pressure. He had only one abscessed tooth which was extracted. His pyorrheal condition eliminated. In six months he returned to me having gained 30 pounds; had resumed his work and had no further trouble. These cases were to have been presented to the meeting but there was no time available.

No. 3. Male aged 37, corneal ulcers; referred by Dr. ——— of Santa Barbara. Radiographs revealed four abscessed teeth, which the doctor had removed and the ulcers healed in a very short time.

THE EPIDEMIC OF FILARIA-ONCHOCERCA

By WILLIAM THOMAS FEE, U. S. Consul at Guatemala City, Guatemala, September 29, 1917.

There has been discovered in the Republic of Guatemala, by Dr. Rodolfo Robles, a new disease of parasitic origin, hitherto unknown in the American continent, commonly called Erysipelas of the Coast; produced by infection by a parasite—*Filaria Onchocerca*.

The disease exists in a zone that ranges in an altitude between 2,000 and 4,000 feet above sea level, and it is supposed to be transmitted from person to person by the bite of a special genus

of mosquito or fly, which is only found in the zone where the infection is existing.

SYMPTOMS OF THE DISEASE.

They are divided into two stages: The Acute, and Chronic. In the Acute Stage, the patient complains of terrible and excruciating headaches; there is redness, (erythema) and swelling of the face (edema), accompanied by high fever. The eyes present an acute conjunctivitis, a dotted keratitis, iritis, and edema of the lids. The patient continues so for a period of eight or ten days, at the end of which time the skin of the face cracks and undergoes fissuring. From these fissures exude a yellowish pus, and from which by microscopic examination the etiological parasite, *filaria-onchocerca*, can be demonstrated. The transmitting mosquito imbibes and ingests this infected discharge, and transmits the disease in biting another person.

From the acute, the patient passes into the chronic stage, in which the edema gradually diminishes, but does not entirely disappear, the skin wrinkles, due to the decreasing swelling and takes a characteristic greenish tint on the cheeks. There is noted also at this stage, edema of the ears and the patient begins to complain of inability to see, and there now develops little by little a gradual loss of vision, until complete loss of sight results. There are periodic headaches, every 15 or 30 days, in accordance with the amount of toxin eliminated from the infecting parasites.

The parasites are located, in the majority of cases, in the scalp of the head, sometimes in the periosteum, and in this situation may produce perforation of the skull bone, causing serious cerebral disturbances. The place of election for the growth of the parasite is generally the scalp of the head, in a semi-circle around the auricle of the ear, about three inches distant therefrom.

The parasite is encysted in a fibrous tissue, the cyst varying in size from a cherry stone to a pigeon egg. Infection in some cases may take place by inoculation in the foot, and under these circumstances, manifestations of the disease are exhibited in the foot and leg and the cysts are found located in the infected member.

THE NAME OF THE DISEASE.

The disease is called *Filaria onchocerca*—a thread like worm with a crooked tail—from the latin *filum* meaning a thread, because of the resemblance of the infecting parasite to a thread like worm, and *onchocerca* or "crooked tail," and which refers to the family name of this particular parasite.

THE PARASITE.

The female is many times longer in size than the male parasite and sometimes attains a length of 18 inches. Under a powerful glass their heads can be distinctly seen. They feed only upon animal and blood tissues.

THE TRANSMITTING AGENT.

Upon further examination, I find that the transmitting agent of the infection has not been definitely determined. Certain medical authorities maintain it to be a special genus of the mosquito,

while patients suffering from the epidemic, claim on the other hand, that it resembles the nature of a small fly, which is very numerous in the infected zone, active only in the day time and during nine months of the year, commencing with the rainy season in May.

The treatment at the present time is *extirpation* of cysts, by minor operations. Twelve hours after all cysts have been extirpated, the patient completely recovers its sight.

According to present investigations, about 80,000 individuals suffer from this disease in this country, and one thousand have so far been successfully operated upon.

INCREASED SPINAL FLUID PRESSURE AS AN INDICATOR OF MENINGEAL DISEASE.*

By H. G. MEHRTENS, M. D., San Francisco.

Increased spinal fluid pressure has long been recognized as a sign of meningeal inflammation. Its importance has been frequently emphasized but its routine use has been delayed both by difficulties in securing an accurate reading and in interpreting these findings.

In order to secure reliable readings—three factors must be considered. First, the instrument—the ordinary manometer consisting of a glass tube, but has decided disadvantages. It allows spinal fluid to escape into the tube thus decreasing the height of the reading and making it a dangerous procedure in conditions such as brain tumor, in which it may be undesirable to have spinal fluid escape. The mercury manometers are a marked improvement. We have found that the Boulette aneroid instrument has given the most satisfactory readings of any instrument we have used. It is accurate, requires about 10 drops of fluid to operate and is quite easily read.

The second important point in the securing of an accurate estimation is avoidance of pain to the patient in performing the lumbar puncture. Cocainizing the skin and deeper tissues carefully, allowing sufficient time to elapse before making puncture—all assist in preventing the patient from raising the venous pressure and thus indirectly the spinal fluid pressure. When the puncture is made and the manometer is attached, complete relaxation must be secured, waiting three to four minutes if necessary to obtain it.

With the above mentioned precautions we made over a thousand estimations of spinal fluid pressures in the Neurological Service of Stanford University Medical School.

In classifying the results we found the following groups could be made out.

Normal Cases—Patients with no clinical lesions and negative laboratory findings, registered pressure from 60 mm. of water to 140 mm. of water. Thus we hardly felt justified in designating a reading as abnormally high under 150 mm.

The *acute inflammatory lesions* of the meninges including tubercular meningitis, epidemic cerebro-

spinal meningitis, all gave uniformly high readings from 155 mm. to 350 mm. of water. This condition is as true of an aseptic meningitis produced by the injection of serum intradurally as for inflammatory states produced by organisms.

Chronic Inflammatory Lesions of the meninges including cerebrospinal lues, tabes and paresis, although not quite as constant as the above group exceed 150 mm. pressure in over 85% of the cases estimated. This group is particularly interesting in that it contains several types of cases in which the spinal fluid findings other than the pressure, are entirely negative at the time of the puncture in spite of positive clinical findings.

The first type consists of cases of "burnt out" or naturally arrested tabes.

TYPE A.				
E. P. M.—42695—Tabes				
Date	Pressure	Cells	Wassermann	Nonne & Noguchi
June 6, '16	195	3	...., ...., ....	..
Aug. 9, '16	165	2	...., ...., ....	..
Dec. 2, '16	210	3	...., ...., ....	..

Status—Irregular pupils, right larger than left—Argyll-Robertson pupil.

Romberg positive.

Achilles and patellar reflexes absent.

Lightning pains.

Gastric crisis.

The above used will serve as an example of tabes showing typical Argyll-Robertson pupil, absent achilles and patellar reflexes, Romberg sign, but exhibiting no abnormality of the spinal fluid other than an increased spinal fluid pressure, from 150 mm. to 240 mm.

TYPE B.				
V. I.—29145—Corebrospinal lues.				
Date	Pressure	Cells	Wassermann	Nonne & Noguchi
Feb. 25, '16	190	105	XXX, XXX, XX.,	X
Mar. 7, '16	190	216	XXX, XXX, XXX,	X
Mar. 17, '16	200	118	XXX, XXX,	X
Mar. 21, '16	180	Irrit. (53)	...., ...., ....	X
Apr. 11, '16	190	from (51)	...., ...., ....	..
June 20, '16	200	Treat. (9)	...., ...., ....	..
Oct. 10, '16	200	1,,	?
Oct. 20, '16	180	1,,	?
Oct. 12, '17	190	8	XXX,,	?
Nov. 12, '17	190	1,,	?
May 28, '18	180	5,,	?
Aug. 16, '18	190	3	XXX, ...., ....	..
Dec. 5, '18	200	1	...., ...., ....	..

Type B is typical of a class of cases of lues of the central nervous system. These cases show a normal cerebrospinal fluid temporarily during some time in their course, either when first observed or after several examinations. Here the spinal fluid pressure remains high in spite of the temporary improvement in cell count or Wasserman.

TYPE C.				
E. P. C.—62047—Tabes				
Date	Pressure	Cells	Wassermann	Nonne & Noguchi
Jan. 25, '18	200	43	XXX, XXX, XX.,	X
Feb. 1, '18	200	7	XXX, XXX, XX., ....	..
Feb. 15, '18	270	4	XXX, XXX, X.,	X
Mar. 12, '18	190	17	XXX, XXX,	X
Sept. 3, '18	275	0	XXX, XXX,	?
Sept. 27, '18	170	1,,	?
Oct. 4, '18	270	1,,	?

T. R.—30882—Tabes				
Date	Pressure	Cells	Wassermann	Nonne & Noguchi
Nov. 9, '15	195	44	XXX, XXX, XXX,	X
Dec. 17, '15	195	26	XXX, XXX, X.,	X
Dec. 3, '15		23	XXX, X.,	?
Dec. 27, '15		35	XXX, XXX, XXX,	X
Jan. 11, '16	200	19	XXX,,	X
Feb. 1, '16	200	11	XXX, XXX, X.,	X
Feb. 25, '16	125	25	XXX, XXX, XX.,	X
June 3, '16	185	4	XXX, XXX, X.,	X
May 22, '17	180	1	XXX, XXX,	?
June 27, '17	180	2	...., ...., ....	..
Nov. 13, '17	130	1	...., ...., ....	..
Dec. 13, '18	105	1	...., ...., ....	..

*Read before the Forty-eighth Annual Meeting of the Medical Society, State of California, Santa Barbara, April, 1919.

Type C represents cases of apparent permanent remission due to treatment in which the high spinal pressure is the last sign of meningeal inflammation to go.

TYPE D.				
J. H. C.—65473—Tubes				
Date	Pressure	Cells	Wassermann	Nonne & Noguchi
May 10, '18	70	35	XXX, XXX,	X
June 14, '18	120	3	XXX, XX,	X
June 28, '18	110	6	XXX, XX,	?
July 23, '18	90	5	XXX, XXX,	?
Jan. 31, '19	65	1.5	. . . . .	?

Type D represents about 10% of our cases of lues of the central nervous system constantly showing no increase of spinal fluid pressure in spite of clinical and laboratory evidence of disease.

The explanation of the above results depends upon our knowledge of the physiology of the mechanism of the production and absorption of the spinal fluid. This is still quite fragmentary. The author, with Dr. Howard West, in experiments of injecting phenolsulphonephthalein into the subdural space found that disease of the meninges greatly increases the time necessary for the drug to pass from spinal fluid to the kidneys. This delay we took to be proportionate to the damage done to the exits in the meninges through which the spinal fluid must pass to reach the venous circulation. According to Blackfan and Dandy these exits are located diffusely throughout the meninges of the cord and brain. Cushing and Weed feel that these communications between the spinal fluid and venous systems occur chiefly in the great sinuses. At any rate we can readily admit that whichever idea is correct, these communications are involved in a majority of cases of meningeal disease. This interference to drainage, as indicated by the lengthened absorption time of phenolsulphonephthalein and increased pressure, may persist during remissions of the disease and in some cases long after symptomatic cure either spontaneously or as the result of therapy. That about 10% of our cases of cerebrospinal lues should exhibit a consistent absence of high spinal fluid pressure could be interpreted as a failure of the disease in these cases, to involve just the area of the exits or a sufficient number of exits to radically interfere with the spinal fluid drainage.

CONCLUSION.

Increased spinal fluid pressure has an important place in our spinal fluid examination, not only in the acute stage where we have other tests to guide us, but because it is a probable indicator of a destructive process, has an important place of its own. It is especially helpful when we have clinical signs or history pointing to an old infection of the meninges or in which the usual signs of inflammation or the Wassermann reaction are normal. In the presence of a high cerebrospinal fluid pressure we have to consider the possibility of the disease being either in a state of remission or that we are dealing with an arrested or cured condition with some destructive changes.

With this information we have a better understanding of the clinical signs and subjective feelings of the patient. It also increases the accuracy of the prognosis. Increased cerebrospinal fluid pressure accurately determined has an equal value

with pleocytosis and the Wassermann reaction in acute infections of the meninges and stands alone as an indicator of destructive lesions.

From the Neurological Clinic, Stanford University Medical School.

References.

- Mehrtens, H. G. and West, H. F. "The Absorption of Phenolsulphonephthalein from the Subarachnoid Space in Diseases of the Central Nervous System." *Archv. of Internal Medicine*, Oct. 1917, Vol. XX, pp. 575-585.
 Dandy and Blackfan, "Internal Hydrocephalus." *Am. Jour. Dis. Child.*, 1914, 8, 106.
 Cushing and Weed. "Studies on the Cerebrospinal Fluid." *Jour. Med. Research*, 1914, 31, 1.

THE RAPID ADMINISTRATION OF DIGITALIS IN CARDIAC DECOMPENSATION

By W. E. KAY, M. D., and J. M. TUFTS, San Francisco, from the Division of Medicine, Stanford Medical School.

Digitalis medication has suffered in the past from this drawback: that the usual doses given by mouth do not produce a physiological effect until several days have elapsed. During this lapse of time the drug is accumulating in the body and the effect does not become apparent until this accumulation has reached a certain point. Among the means that have been suggested for overcoming this difficulty are injections of digitalis preparations either subcutaneously, intramuscularly, or intravenously. Subcutaneous and intramuscular injections are usually painful, while intravenous injections are less easily given and are attended with some increased danger. In any case full doses must be given in order to attain a prompt therapeutic result. For these reasons the introduction of a method whereby digitalization can be accomplished rapidly and with comparative safety, by oral administration of the drug, is a welcome addition to the modes of giving this drug.

Eggleston in 1914, after a careful study of this problem, determined the average dose of digitalis required to produce full physiological effects. This was expressed in terms of cat units, the standard for digitalis strength that had been introduced by Hatcher and Bailey. Digitalis was administered by mouth in the usual manner and the total quantity given up to the time of producing the physiological effect was determined. Since the strength of the preparation in cat units was known, the total number of cat units received by the patient could be readily calculated. By dividing this effective dose by the body weight the effective dose per unit of weight was obtained. Eggleston found that the average effective dose was 0.148 cat units per pound of body weight. The largest and smallest effective doses, however, showed considerable variation from this average. In order to obtain a rapid digitalis effect Eggleston administered from one-third to one-fourth of the full therapeutic dose at the onset of treatment. This was followed in four to six hours with one-fourth to one-third of the full dose. The remainder was given in a few doses of smaller size at intervals of from four to six hours. In this way the full therapeutic effect of digitalis could be obtained in from twelve to thirty-six hours after beginning treatment.

More recently White and Morris have reported

favorably on this method of administration. They believe that the shortened time required for securing a digitalis effect will give this method an important use in selected cases. They also were able to obtain digitalis effects in from twelve to twenty-four hours.

A similar method of giving digitalis has been used, for the past two years, in the wards of the Medical Clinic at the Stanford Medical School. In selected cases, from twenty to twenty-eight cubic centimeters (3v-vii) of a standardized tincture of digitalis were given within twenty-four to thirty-six hours. Of this amount twelve to sixteen cubic centimeters (3 iii-iv) were administered on the afternoon of admission, and four cubic centimeters (3i) were administered after each of the three meals on the following day. The administration was then stopped and was not resumed until clinical or electrocardiographic observations indicated a decline in the effect of the drug. This usually occurred after three to five days. The usual dose of one to two cubic centimeters three times a day was then given.

The chief indication for the administration of digitalis to patients suffering from heart disease is cardiac insufficiency, as manifested by dyspnea, cyanosis and edema. The effectiveness of the drug varies according to circumstances. It is most effective when there is auricular fibrillation associated with a rapid ventricular rate and a marked pulse deficit. It is likewise effective in chronic arterial hyper-tension with broken compensation.

Of contraindications to the rapid administration of digitalis, the most important is the use of this drug by the patient shortly before coming to the hospital. If the patient has been taking digitalis, an unknown quantity may have accumulated in his body and under such circumstances the rapid administration of a full dose may produce toxic effects. Occasional deaths have followed the intravenous injection of strophanthin; usually, however, in those who have been taking digitalis preparations shortly before the injection was given. While a similar danger may be present if very large quantities of digitalis are given rapidly by mouth to a patient who has been taking the drug shortly before, we believe that this danger is much less than from intravenous administration; partly because the drug enters the body less suddenly and partly because it can be discontinued before the full dose is reached if toxic symptoms appear. Other conditions which necessitate caution in administration are a delayed conduction time between the auricular and ventricular systoles, partial heart block and numerous extrasystoles.

From the appended case histories, selected from a series of over one hundred and fifty administrations by the above method, it will be seen that in favorable cases a striking improvement may be obtained within twenty-four hours, by the rapid oral administration of digitalis in large doses. This improvement is shown by a slowing of the pulse rate, by a reduction of difference between apex and radial rates in auricular fibrillation, by the removal of edema (a sudden fall in body weight) and by

the relief of symptoms. Serious toxic effects were not observed.

Case History. No. 56082. Diagnosis:—Chronic Nephritis, Chronic Hypertension, Myocarditis, Decompensation. G. H., male, age 52, admitted Feb. 6, 1917, showing marked dyspnea, cyanosis, edema of lungs, and edema of lower extremities.

Feb. 6. Radial pulse, 106-110; weight, 190; tincture of digitalis, 12cc at 3 p. m.

Feb. 7. Radial pulse, 89-88; tincture of digitalis, 4cc at 8 a. m., 12 m. and 6 p. m. Patient more comfortable.

Feb. 8. Radial pulse, 74-80; weight, 168. Less dyspnea, less edema.

Feb. 15. Radial pulse, 60-70, weight, 169. Patient considerably improved.

Case History. No. 57283. Diagnosis:—Chronic Nephritis, Hypertension, Myocarditis, Decompensation. T. P., male, age 56, admitted Aug. 8, 1917, showing marked dyspnea, edema of lungs, ascites, edema of lower extremities.

Aug. 7. Radial pulse, 106-110; weight, 216; tincture of digitalis, 12cc at 3 p. m.

Aug. 8. Radial pulse, 80-88; tincture of digitalis, 8cc at 8 a. m., 4cc at 12 m. and 6 p. m. More comfortable; dyspnea less.

Aug. 9. Radial pulse, 88.

Aug. 10. Radial pulse, 70-90; weight, 210. Much improved. Able to sleep.

Case History. No. 31224. Diagnosis:—Myocarditis, Auricular Fibrillation, Decompensation. D. H., age 58, admitted July 7, 1918, showing marked dyspnea, hydrothorax, ascites, edema of legs.

July 7. Apex beat, 140-150; radial pulse, 105-110; weight, 210; tincture of digitalis, 8cc at 3 p. m., 4cc at 4 p. m.

July 8. Apex beat, 94-108; radial pulse, 80-90; tincture of digitalis, 4cc at 8 a. m., 12 m. and 6 p. m. Much more comfortable.

July 9. Apex beat, 76-80; radial pulse, 80; weight, 194. Considerably improved, sleeps well.

Case History. No. 50277. Diagnosis:—Mitral Insufficiency, Auricular Fibrillation, Decompensation. J. M., male, age 39, admitted Jan. 18, 1918, showing extreme shortness of breath, edema of lungs, ascites, and edema of legs.

Jan. 18. Apex beat, 140-160; radial pulse, 100-125; weight, 146; tincture of digitalis, 8cc at 4 p. m.

Jan. 19. Apex beat, 88-96; radial pulse, 80-84; weight, 140; tincture of digitalis, 8cc during day. Dyspnea had disappeared.

Jan. 20. Apex beat, 72-74; radial pulse, 68-72; tincture of digitalis, 4cc during day.

Jan. 21. Apex beat, 66-70; radial pulse, 62-64; weight, 134. Edema of extremities gone.

Case History. No. 58502. Diagnosis:—Myocarditis, Auricular Fibrillation, Arterio Sclerosis, Asthma, Decompensation. J. D., male, age 55, admitted Sept. 15, 1917, showing marked dyspnea with ascites, edema of legs.

Sept. 15. Apex beat, 140-160; radial pulse, 110-120; weight, 140; tincture of digitalis, 4cc at 8 a. m., 12cc at 6 p. m. In extreme distress.

Sept. 16. Apex beat, 90-100; radial pulse, 76-82; tincture of digitalis, 4cc at 8 a. m., 12 m. and 6 p. m. Marked improvement.

Sept. 17. Apex beat, 68-88; radial pulse, 68-82; weight, 100. Patient able to sleep. Very much improved. Edema less.

Case History. No. 67332. Diagnosis:—Myocarditis, Auricular Fibrillation, Decompensation. F. A., male, age 63, admitted July 15, 1918, at 2 p. m., showing marked dyspnea, edema of lungs, hydrothorax, ascites and edema of lower extremities.

July 15. Apex beat, 140-150; radial pulse, 110-112; weight, 225; tincture of digitalis, 12cc at 2:30 p. m., 4cc at 6 p. m.

July 18. Apex beat, 68-88; radial pulse, 68-72; weight, 217; tincture of digitalis, 4cc at 8 a. m., 12 m. and 6 p. m. Patient fairly comfortable and able to sleep.

July 17. Apex beat, 70-80; radial pulse, 68-75; weight, 199. Improvement marked.

July 18. Apex beat, 68-88; radial pulse, 68-72; weight, 180. Edema of extremities and fluid in chest and abdomen disappeared. Patient able to lie flat in bed.

Case History. No. 58001. Diagnosis:—Mitral Stenosis, Auricular Fibrillation, Decompensation. M. M., female, age 33, admitted Aug. 28, 1917, showing extreme shortness of breath, vomiting, edema of lower extremities. Marked distress.

Aug. 28. Apex beat, 160-162; radial pulse, 100; weight, 140; tincture of digitalis, none. Patient showed distress.

Aug. 29. Apex beat, 156-168; radial pulse, 80-90; weight, 140; tincture of digitalis, 12cc at 5 p. m. No improvement.

Aug. 30. Apex beat, 94-120; radial pulse, 80-90; tincture of digitalis, 8cc at 8 a. m., 4cc at 12 m. and 6 p. m.

Aug. 31. Apex beat, 80-88; radial pulse, 78-88; weight, 135. Striking improvement. Small pulse deficit.

Case History. No. 64334. Diagnosis:—Aortic Regurgitation, Decompensation. C. P., male, age 30, admitted at 5 p. m. April 2, 1918, showing marked shortness of

breath, edema of lungs, moderate edema of lower extremities.

April 2. Radial pulse, 124-130; weight, not taken; tincture of digitalis, 8cc at 6 p. m.

April 3. Radial pulse, 80-100; tincture of digitalis, 4cc at 8 a. m., 12 m. and 6 p. m. Patient much more comfortable, and able to sleep.

April 4. Radial pulse, 72-80. Greatly improved, sleeps well.

Case History. No. 52045. Diagnosis:—Myocarditis, Auricular Fibrillation, Decompensation. H. W., male, age 50, admitted March 13, 1917, presenting symptoms of marked dyspnea, ascites and edema of lower extremities.

March 13. Apex beat, 125-135; radial pulse, 100-110; weight, 191; tincture of digitalis, 4cc at 10 a. m., 3 p. m. and 8 p. m.

March 14. Apex beat, 105-112; radial pulse, 85-100; weight, 192; tincture of digitalis, 8cc during day.

March 15. Apex beat, 100; weight, 192; tincture of digitalis, 8cc during day. No dyspnea. Patient was able to sleep flat in bed.

March 16. Apex beat, 90-95; radial pulse, 70-80; weight, 170. Edema almost gone. Patient quite comfortable.

Case History. No. 44945. Diagnosis:—Myocarditis, Auricular Fibrillation, Chronic Nephritis. C. S., male, age 46, admitted showing marked dyspnea, edema of lungs, ascites, edema of lower extremities.

Oct. 15. Apex beat, 120-140; radial pulse, 100-120; weight, 154; tincture of digitalis, 12cc at 4 p. m.

Oct. 16. Apex beat, 90-115; radial pulse, 80-90; weight, 150; tincture of digitalis, 4cc at 8 a. m., 12 m. and 6 p. m.

Oct. 17. Apex beat, 78-88; radial pulse, 60-78; weight, 147. Fairly marked improvement. Patient able to rest. Edema still present.

Case History. No. 36635. Diagnosis:—Chronic Nephritis, Myocarditis, Decompensation. J. W., male, age 56, admitted Sept. 13, 1917, showing dyspnea, edema of lungs, ascites, edema of lower extremities.

Sept. 13. Radial pulse, 100-110; weight, 160; tincture of digitalis, 12cc at 3 p. m.

Sept. 14. Radial pulse, 80-90; tincture of digitalis, 4cc at 8 a. m., 12 m. and 6 p. m. Patient able to sleep.

Sept. 15. Radial pulse, 60-70; weight, 150. Dyspnea considerably improved. Still some edema.

Case History. No. 61251. Diagnosis:—Myocarditis, Auricular Fibrillation, Decompensation. A. H., male, age 57, admitted Dec. 21, 1917, showing rather marked dyspnea, edema of lungs, legs and ascites.

Dec. 21. Radial pulse, 110; weight, 210; tincture of digitalis, 8cc at 4 p. m.

Dec. 22. Apex beat, 94-108; radial pulse, 64-86; weight, 200; tincture of digitalis, 4cc at 8 a. m., 12 m. and 6 p. m.

Dec. 23. Apex beat, 84-90; radial pulse, 68-74; weight, 188. Dyspnea gone, edema gone. Patient much improved.

Case History. No. 58139. Diagnosis:—Myocarditis, Auricular Extra Systoles. Broncho-Pneumonia, Hypertension, Decompensation. E. G., female, age 57, admitted with marked dyspnea, ascites, edema of lower extremities.

Sept. 4. Radial pulse, 110-120; weight, 146; tincture of digitalis, 4cc at 3 p. m., 4cc at 4 p. m.

Sept. 5. Radial pulse, 96-108; weight, 144; tincture of digitalis, 4cc at 8 a. m., 12 m. and 6 p. m.

Sept. 6. Radial pulse, 78-96; weight, 141; tincture of digitalis, 1cc three times daily to dismissal. Patient improved. Less dyspnea. Edema almost gone.

Sept. 12. Radial pulse, 80-80; weight, 124.

References.

Eggleston, Cary. Digitalis Dosage. Arch. Int. Med. 1915, V. 16: 1.

Hatcher, Robert A. and Bailey, Harold C. Tincture of Strophanthus and Strophanthin. J. A. M. A. 1909, V. 52: 5.

White, S. Marx, and Morris, R. Edwin. The Eggleston Method of administering Digitalis, with some notes on digitalis lutea. Arch. Int. Med. 1918, V. 21: 740.

NEPHROLITHIASIS: REPORT OF A RATHER UNUSUAL CASE.*

WIRT BRADLEY DAKIN, M. D., Los Angeles.

After all has been said and done regarding the examination of a patient with Renal Calculi, there is a certain degree of curiosity to actually see on the day of the operation just how much renal destruction has occurred.

Because of a more extensive destruction of kidney tissue than expected or for the reason

of uncontrollable hemorrhage, occasionally a contemplated nephrotomy results in a nephrectomy. Admitting this, the following case impressed me as being of sufficient interest to be reported.

Case No. 43—Male, age 56. Occupation, banker. A very busy man in the past and often overworked. Of late has taken considerable exercise with regularity. A man of athletic tendencies, well proportioned, and weighing about 180 pounds. General appearance, strong and well except for a slight pallor.

Complaint and Past History.

Periodical nervous breakdowns accompanied by some degree of pain on the left side, a slight urinary frequency, turbid urine, anorexia, sometimes nausea but never the picture of true renal colic. Urinary turbidity had been present for 18 years; however, the more or less disagreeable subjective symptoms were comparatively recent.

Examination.

(A) Physical.

1. Negative except for a slightly increased blood pressure.

(B) Bladder and Kidneys.

1. Urine as voided by patient very purulent and offensive in odor. No urinary retention. Bladder washed clean very quickly.

2. Cystoscopic examination showed only a mild degree of trigone cystitis with a slightly gaping



uretral orifice on the left side surrounded by a small zone of redness. Ureteral catheterization gave the following results:

Left Kidney	Right Kidney
Thick purulent urine I.	Clear urine.

3. Functional Kidney Test.

(Phenol-Sulphone-Phthalein) (Intravenous)	
Left Kidney	Right Kidney
Appearance of dye in 10 mi.	Appearance of dye in 2½ mi.
Quantity hardly enough to estimate 1st 30 mi.	Quantity 41% in 30 mi.

* Read before the Forty-eighth Annual Meeting of the Medical Society, State of California, Santa Barbara, April, 1919.

4. Microscopical and chemical examination. This procedure corroborated the previous findings.

5. X-Ray examination.

Left Kidney and Ureter.

Right Kidney and Ureter

Large group of stones in upper portion of pelvis and extending into calyx. One large shadow widely separated from above calculi and situated apparently well below border of kidney shadow.

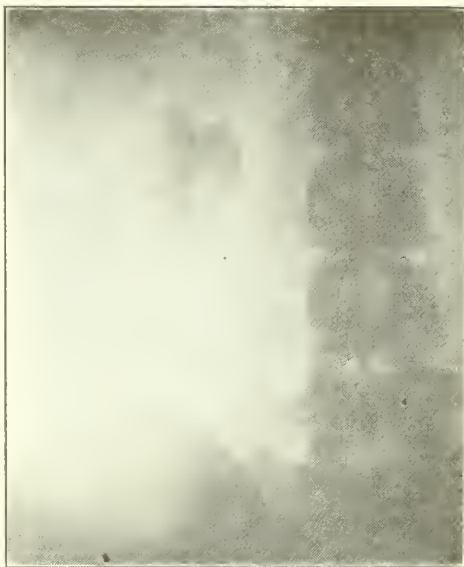
1. Entirely negative.
2. It was necessary to inject sterile water into the catheter to start the urinary flow.

6. Pyelography.

This procedure it was necessary to omit. The preceding cystoscopy had produced an extremely severe left-sided renal colic and we did not wish the experience repeated.

Points of Interest.

(A) The presence of this rather unusual shadow at the extreme lower portion of the X-Ray plate necessitated our facing the problem of a more extensive operation than Nephrotomy or Nephrectomy. Could the shadow be a stone that had escaped from the kidney and was lying somewhere below the kidney and posterior to the viscera?



(B) This particular experience impresses one of the value of pyelography if such a procedure is at all possible. Before pyelography was in vogue occasional right-sided nephrotomies for calculi were very disappointing. The X-Ray shadows were gall stones.

X-Ray Photographs.

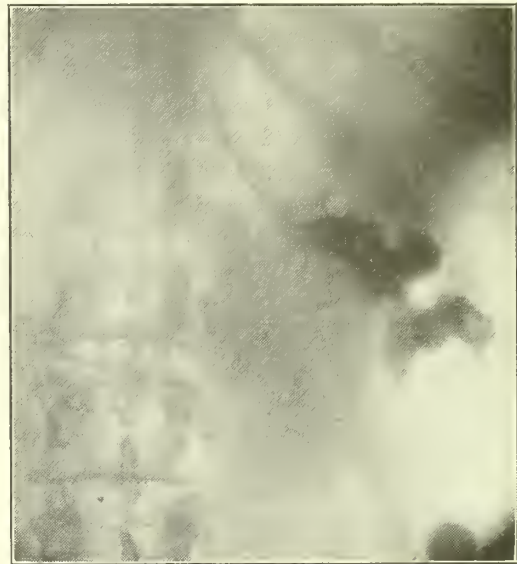
The following photographs show a series of ordinary calculus kidneys in contrast to our case reported.

The Operation.

This proved to be quite as interesting as expected. The kidney was of enormous size and

impossible of delivery until over 1000 c.c. of its purulent contents had been aspirated.

Following this procedure it was our pleasure to be able to palpate the extreme lower portion of the kidney which extended at least 15 c.m. below the normal level; and to there locate our mysterious calculus which measured 3 c.m. in



diameter. After removal this kidney was found to contain an additional 300 c.c. of pus in its upper portion.

Post-Operative.

The patient made an uninterrupted recovery. Even though the case had been of such long standing his urine was nearly clear within a month. His post-operative care consisted of nothing except the administration of Hexamethylenamin. In general these cases appear to do better with a minimum of bladder lavage.

Previous to his coming under our observation his case had been diagnosed as Neurasthenia with marked melancholia and treated as such.

607 Investment Bldg.

A SCHEMATIC METHOD FOR ESTIMATING THE HEALTH STATUS OF THE RUNABOUT CHILD.*

By C. EDGERTON CARTER, M. D., Los Angeles.

This is the time of a new viewpoint,—a renaissance due at first to the stimulus of the world war and now to the dawn of an appreciation of the possibilities that are ours in Conservation. Conservation of wealth, of life, of health, or in whatever direction we bend our efforts, astonishes us in its cumulative result. A life saved carries with it its capacity for achievement. Among diseases formerly demanding frightful toll preventive methods have attained mastery! In the realm of health for equally brilliant results the

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keynote necessarily must be Prevention. Health undermined, though eventually restored, does not have the same value in insurance risk for instance as that of unbroken record. Disease cured can never equal health unimpaired.

Of what avail is it to save each year our hundred thousand babes if we fail, as at present, to bridge the gap of the succeeding years,—years in which the infant develops along the line of least resistance into the youngster plastic in possibilities, but unless fortified by habits making for health peculiarly receptive to distortion and disease.

At school age we are in a measure prepared to deal with disease and defect; at infancy by means of milk stations, visiting nurses and educational centers we offer increasingly protection and education, but these intervening four or five years, perhaps the most susceptible five-year period in the span of life, remain practically ignored so far as systematic efforts are made for the betterment of conditions.

At the last annual meeting of the American Pediatric Society the President's address was on "The Neglected Period of Childhood." La Fetra struck the keynote of our conservation policy when he emphasized this neglect of the Runabout Child. His plea was for an examination at regular intervals of all pre-school children, with subsequent supervision and needed medical attention. Reflection upon the findings at the various army recruiting stations has impressed upon medical men the conclusion that our present method of "laissez faire" is hardly productive of the health standard among our youth that we may reasonably anticipate. One-third of our recruits rejected for physical disability and one-half of our children more or less diseased at school age impels us to seek more efficient supervision of the pre-school child.

May it refresh our memory to recall that Dr. W. R. Woodbury at the tenth congress of the American School Hygiene Association, held at Albany, said that 50 per cent. of the medical problems in a child's life exist when the child is first registered for school. In other words, half the ills and defects develop during the pre-school age. Further to note that Alfred S. Hess, New York, from tests on several hundreds of children of the runabout age corroborates European observations in that at least 75 per cent. of all tuberculous infection has begun before the child reaches school age. Holt, Pisek, and other observers are agreed that an equally large percentage, possibly 90 per cent., of endocarditis has its beginning in the pre-adolescent age, when focal infections find their non-resistant host an easy prey! Permanent health impairment, paralysis or death is a too frequent sequel of these conditions, three-fourths preventable.

Only sporadic efforts have been focused on the preventive phase in runabouts; Hess of New York has his Preventorium for Runabouts, but this lonely approach is in the line of institutional work and among the poorer classes. Truby King, who has lowered the infant mortality rate in Australia to 5 per cent.—lower than that of any other

country—achieved his results by concentrated effort among the educated classes. It is in this class, the very backbone of our nation, that our own efforts should be begun. There is urgent need for intelligent, systematic health direction given to the parents of our educated masses. The very poor even now may have their child under the regime of a protective institution; (though this at its best will utterly fail in obtaining permanent results unless the parents' standard of education is elevated to keep pace with the progress made in the care of the child). The ultra rich can command its own staff of experts for the individual guidance of the growing child; all this is well and good, but the unaltered fact remains that broadly speaking few parents of the educated class today have at their command practical guidance for the inspection and protection of their children until the school age is attained. This is an age limit too far advanced for the prevention of most preventable conditions. It is essential that our infant mortality rate be lowered, but no less essential is it that we have an even greater decrease in the morbidity among these children of pre-school age. To accomplish this it is hardly possible without frequently repeated and recorded examinations both for our own reference and for parental instruction and co-operation.

Among seven thousand children examined by Woodbury in the Chicago schools 40 per cent. were malnutrients. In New York practically half the school children need physical attention. Surprise and skepticism at the announcement made by the Bureau of Child Hygiene give way to disconcerting admission when we read the report March 1918 of F. A. Manny of the New York Association for Improving the Condition of the Poor, in which he says that of the one million, and over, school children in New York City, one-third or 335,000 are so much below normal standards of growth as to call for special nutritional care. Further, that of this group over 100,000 require medical treatment. To meet the health demand of this group, on February 1, 1917, the New York City Department of Health officially took charge of the fresh air schools; these now number over one hundred fresh air classes. Types of children admitted to these schools (established on roofs of school buildings, on ferry boats and in parks) comprise those exposed to tuberculosis, mal-nutrients, nervous children, those easily exhausted, those frequently absent on account of colds, bronchitis, etc. and those suffering with certain cardiac conditions,—six general types of cases showing marked improvement under this added hygiene.

It may sound like "harping" but since we have no data of the pre-school child, either in New York or elsewhere, it is practically inevitable that there is an equal ratio among the runabouts who are in need of supervision and who demand superior hygiene but with this distinctive difference: that these earlier years are much more potent for the prevention of permanent deformity and disease.

Here in California, where sunshine and abundance are our pride, nearly one-third of the 41,000

children examined in the June Drive were below the average weight for their measured height. It is superfluous to add that a thin child is not a healthy child, and that he needs medical supervision. In the California examinations no attempt was made to ascertain what percentage revealed clinical evidence of tuberculosis, nor was data obtained of the other diseased conditions.

In England a more elaborate report has recently been completed, under the direction of Sir George Newman, Chief Medical Officer of the Board of Education, relative to the status of school children in and about London. This reveals astounding conditions in the years which we have taken for granted as comparatively free from disease, except for an occasional ailment or contagion. The number of children inspected totaled 1,362,063, or over one and one-third million. Of these school age children there were absent for more or less chronic ill health 17 per cent. or approximately 110,000; after deducting the blind, deaf and mentally and physically defective and invalid children, of which the total is not given, there were found to be suffering from one or more serious defects 24 per cent. of the children present, i. e.—after excluding those palpably defective or chronically ill there were still found to be of these "normals" one out of four in need of medical attention. Of these London school children 40 per cent. had carious teeth and 65 per cent. of the country children, an average of fully 50 per cent., or totaling over 680,000 children. Of these there were 12 per cent. or 163,000 poorly nourished.

Children suffering from nose and

throat disease.....	11%	or 150,000
Serious vision defects.....	10%	or 136,000
Less serious vision defects.....	13%	or 175,000
Severe anaemia.....	6%	or 80,000
Defective hearing.....	6%	or 80,000
Middle ear disease.....	4%	or 54,000
Skin disease (nutrition).....	4%	or 54,000
Organic heart disease.....	4%	or 54,000
Spinal curvature of the worst grade	4%	or 54,000

Totalling 837,000 with *one or more* serious defects, and since over 680,000 had carious teeth we may amend the statement by saying that at least that number (680,000) had *two or more* serious defects, remembering that the utterly unfit and chronics were not even considered in this résumé. Out of 1,362,063 children of school age we find 525,000 only in a comparatively normal physical condition. This is equivalent to only 40 per cent. of the London children approaching normal health. What their status of mental efficiency is we find no report, nor is even mention made of tuberculosis and its associated ills. It is unnecessary to consume further time in revealing the status of the youth as a school boy; in our own country greater protection is afforded the school child in care of the teeth and possibly eye, ear, nose and throat diseases, but in the scattered census taken here and there the standard of health as indicated by nutrition, endocarditis, tuberculosis, postural and bony distortions, is scarcely one to fill us

with the assurance that our children present a physical picture greatly differing from the London child in his points of weakness, or that the succeeding generation will present a health standard better than that so surprisingly revealed by our own recruiting officers' report.

Let us then go back one more step from the army recruit, past this picture of the public schools to the pre-school or runabout age. What are some of the greater health problems of this period still unsolved and even untouched? Consider merely in addition to mal-nutrition:—tuberculosis, focal infections and postural defects. These are necessarily not distinct entities, and as diseased conditions they naturally intermingle; but how intelligently are we directing our efforts frankly for their eradication?

According to the last report of the Bureau of Public Health Education, one-seventh of all deaths are caused by T. B. infections. In New York alone for the past thirteen years the annual deaths from T. B. have varied but little from ten thousand, approximately 200 each week or 28 deaths every 24 hours from T. B.; evidently present methods are not stamping out T. B.! Yet in these earlier years of the Runabout the great importance of T. B. is not as a *disease* so much as an infection to be prevented. American and European observers agree that nearly all T. B. *infections* occur before puberty. F. M. Pottenger considers that *by the time school age is reached* the disease has a tendency to become chronic. Other clinicians add evidence that the period of infection occurs before the fourth year in 70 per cent. of the cases. In a series of 1320 autopsies in New York, all under five years of age, F. Clifton Moor reports 13½% showing more or less general tuberculosis. If approximately one out of seven Runabouts *died* of T. B., what must be the T. B. *infections* total? As to method of receiving this infection,—Holt, Chapin and Biggs of New York, Howland of Baltimore and Lucas of San Francisco believe that 90 per cent. is the result of close personal contact. Kerley, New York, from observation of 650 cases at the Babies Hospital, found 60 per cent. with history of contact, but no history can cover all possible sources of infection, particularly previously occupied and contaminated apartments.

The British Commission collected data in 1500 cases in which the conclusion was given that from 10 to 13 per cent. of tubercular diseases in children under five years is of bovine origin, i. e. milk and butter borne. Pottenger in a paper published December, 1918, suggests that the percentage may be much greater than that quoted when we consider the possibility of bovine bacilli changing to human bacilli after years of growth in human tissue.

While we do not purpose considering infancy with its problems in this discussion, it is apropos to make one observation that though locally here and there the infant and child obtain milk from tuberculin tested cattle, it is anything but true as a general statement that children at large are protected from the bovine type, for the U. S. Bureau

of Animal Industry gives in the last annual report for the estimate that 25 per cent. of our dairy cattle are tuberculous, so that the door to infection is not yet closed in this direction.

Avenues of entrance in children are through the respiratory and alimentary tracts. Mitchell of Edinburgh tested biologically the adenoids removed from 69 children in whom there were present no symptomatic evidence of T. B. such as we are accustomed to consider enlarged post-cervical glands or afternoon temperature to be, and in these cultures there proved to be 38 actively tuberculous, i. e. over 50%. Though the tonsil is looked upon as a portal for the frequent entrance of the disease, the organ itself is perhaps rather rarely infected:—Dieulafoy noted 13 per cent. of 61 hypertrophied tonsils as tuberculous, though the percentage of cryptic carriers was not reported.

Aronson and Friedberg in the base hospital at Fort Sill, Okla., found unsuspected adenoids in the adult to harbor the *Diplococcus Meningitidis* and to serve as a carrier until their removal. How much of our secondary T. B. Meningitis in the Runabouts and acute cerebro-spinal meningitis may arise from adenoid tissue serving as the incubating nidus?

In tubercular infection of childhood the greatest danger from neglect lies in the misleading peculiarity that after the first two years a quiescent period of clinical symptoms begins. We have the apparently anomalous condition of there being fewer deaths from T. B. in these earlier years, yet (according to Hess in the American Medical Association Journal, January 11, and Bass in his observations at the Home for Hebrew Children) it was found in over 1000 tests that while under six months only 7 per cent. gave positive T. B. reaction at the age between five and six years, 75 per cent. gave positive reaction! Our own observations at the Los Angeles County Hospital so far corroborate these figures but will be given later in a separate report.

Guilfoy of the New York Department of Health also shows that wherein during the Runabout years there are comparatively few deaths from *pulmonary* tuberculosis, the great majority are due to meningitis. A further commentary revealed by Hess in his analysis is that the marked increase in death from T. B. taking place at puberty (12 years in girls and 15 in boys) is through an autogenous infection from a focus doubtless acquired early in childhood; infecting foci that have lain dormant until this extra demand, of adolescence upon the system, breaks down the defensive reserve. Further food for thought that *early* application of methods decreasing auto-infection might be far reaching in their protective results,—and rather convincing evidence that the Runabout's protection *demands* periodical examinations and tests.

Endocardial and Myocardial involvements are the cause of more deaths annually in New York City and elsewhere than even tuberculosis. According to Department of the Bureau of Census 1915 the rate was 156.2 per 100,000 as compared

with 145.8 for all forms of tuberculosis; furthermore, heart abnormalities though acquired later in life than T. B. (rarely before three years, few before five), have their greatest period of susceptibility, according to Kerley, between five and twelve. Every physician of clinical experience knows how commonly endocarditis in the child and even the adolescent produces no subjective symptoms. Only by periodic examinations will such conditions be discovered at their onset.

The trinity of infecting sources,—adenoids, teeth, tonsils,—is productive of the bulk of cardiac disease, 80 per cent. often estimated with the remaining 20 per cent. arising from scarletina, diphtheria, pneumonia, measles, and less frequently other contagious diseases in which the infected tonsils are the natural portals of entrance. In an able paper on "Intracranial complications of Diseases of the Ear, Nose and Throat," Dr. Hill Hastings, Los Angeles, warns against radical operative procedure during the acutely infective stage of the accessory sinuses. Is it not a logical corollary that the early routine removal of redundant adenoid tissue during the quiescent stage might obviate some of the secondary sinus complications beside eradicating a common site of infection for general tuberculosis or secondary infection of the meninges? Incidentally how many tonsils irritated, congested and hypertrophied from mouth breathing might not return to normal function as a sequence to this early adenectomy with its subsequent effect upon the tonsillar health?

Structural and postural defects in the Runabout constitute a most extensive and responsive field. Postural deviations of the Runabout years become structural deformities of the adolescent years if unobserved and uncorrected in their beginning. Flat or rachitic chests come as a natural sequence in the mal-nourished child, badly fed as an infant or with breathing made difficult through uncorrected nose and throat obstructions. Lax spines in children habitually tired, commonly lapse into curved spines that become chronic. Imitation and imagination are potent factors in the habitual carriage and posture of the child which mold his physical expression into abnormal or often grotesque body habit. Recall that the Runabout's brain at four years is as nearly grown as his body at twenty years, and we begin to grasp the need for an earlier direction of his mental forces into habits of health and discipline.

One of the commonest defects in the foot of childhood is simple valgus—turning in of the ankle—"ankle valgus" as Rich, Supervising Orthopaedic Surgeon of the U. S. Army, calls it. Moreover, Rich states in an illuminating article—*Journal A. M. A.*, Vol. 71, No. 24, on "Static Defects of the Feet" that because most of these cases in children remain untreated they persist. He quotes the ratio of simple valgus with no longitudinal arch descent, to the cases of flat foot as five is to one and a half; a potential flat foot, four times as frequent as the common flat foot. The frequency of flat foot in the adult and the statement by Rich that pronation is the important factor in the descent of the arch gives us some

appreciation of what early correction might accomplish. Foot abnormalities in children are commonly overlooked, for the simple reason that the child has no systematic examination, and unless conspicuous defects or symptoms attract our attention the condition remains uncorrected. The Runabout Child in the present stage of protective evolution is not in the position of one whose health is safeguarded, but of one to whom help is given if asked for—by the child.

Since active malnutrition and tuberculosis in children interact upon each other, since infections that may localize upon the heart valve or in the joints may have a common portal of entrance easily discernible, since structural and postural defects are most responsive to early correction, the necessity for a practical system in periodically checking up the Runabout is obvious. Such a system must be comprehensive, though shorn of "frills."

The scheme presented for your consideration is the outgrowth of examination blanks used at the Health Center for Runabouts under the Los Angeles Department of Health and the Physical Psychological Records used in the Crippled Children's Guild of Los Angeles, plus the request made by the parents and children themselves for a chart that they "can see." Working under Sargent at Harvard a year ago, the value of charting physical measurements was impressed upon the writer's mind, and while it is not possible to chart "conditions" as we can definite "measurements," still a visual outline of the comparison with normal proves of stimulative interest to the parent in the child's physical status and also adds definitely to the impetus for advancement in possible deficient or defective conditions discovered at the time of examination. Such a schematic method for estimating the health status of the Runabout is adapted equally well to older children, but because of the preventive and easily corrective possibilities during this period and because of the total neglect during these years, emphasis is laid upon this limited field. Fully realizing that all charts are but suggestive, yet if in some small measure through argument, further development or by stimulating the interest of the more capable observers this chart shall help bring to the Runabout the intelligent protection he so sadly needs, this paper will have served its purpose. It is to be appreciated that all *grading* in the line of percentage is also purely arbitrary and subject to easy criticism. This at the outset is frankly acknowledged. After all the importance we lay upon a particular defect matters not, whether a chronic appendix for instance be rated at only 2 per cent., while a comparatively insignificant feature like a slouchy sitting posture be rated equal in amount, so long as the parent's attention is brought to this abnormal feature and so long as the parent (and if the child is able to appreciate it, the child himself) sees in diagrammatic form that failure to correct any or all of these defects makes it impossible for the chart to record normal health. In individual cases emphasis in grading and comment is naturally laid upon those defects which outrank in seriousness lesser points upon which attention is also focused. Appreciation

of Orthopaedic suggestions by Dr. C. L. Lowman is acknowledged with pleasure.

The Chart itself is arranged under ten headings, one of which—the last—is symptomatic. Each heading has five points, totaling ten per cent., or 2 per cent. to each point, by means of which in summing up the ten headings 100 per cent. is secured. Thus the complete physical examination covers some fifty points, or "angles." On account of the printed form and arrangement, this rather complete examination can be expeditiously made and recorded, but for a "checking up" less detailed, though still general and suggestive in its scope, the chart is so arranged that by testing the child on the first and last point under each of the ten headings only twenty points are covered instead of fifty, yet these points give a fairly comprehensive summary of the health status in shorter time. Under this less detailed physical charting each point would naturally stand for 5 per cent. instead of 2 per cent., as in the more complete picture. The general scheme of the chart is in three divisions. First, a body outline by which the child (if he be far enough advanced) may see his weak points located and become interested in overcoming them. Second, parallel vertical lines subdivided so that the defects and abnormalities are identified by gaps or breaks in continuity of color for the ready comprehension and co-operation of the parent. Improvement noted in subsequent examinations may be filled in with different colors corresponding to the particular date at which correction of a specific defect has been secured or in which improvement in abnormal conditions has been observed. This color elaboration may or may not be used and is of course a non-essential refinement.

Third, at the right are the specific points covered in the examination and are for the physician's benefit, to enable him systematically to cover the subject from various angles. A careful inspection of any child demands that we have data upon the specific points enumerated at least, and by so grouping the results of our tests a ready reference is instantly available.

At the extreme right is a list for jotting down the name of consultants in the various branches specified. All of the arrangements are purely arbitrary, but have proved time savers and systematizers in the work. The ten headings of the chart in an analysis may be grouped under three general subjects, the urgent importance of which is observed in the Pediatricist's daily work.

First—Nutritional Disturbances.

Second—Focal Infections.

Third—Postural and Structural Defects.

Under Nutritional Disturbances are the direct observations of insufficient stature, or weight, or both, as well as abnormalities of the skin and blood. Also the secondary results producing many of the neuroses and the child's disposition and attitude towards his environment, summed up under Temperament. These are conveniently grouped under headings 1 and 9 on the Chart.

The second subjective grouping comprised by far the larger and more important group of Focal Infections. Here the primary conditions of teeth,

adenoid and tonsil are grouped, plus the secondary infections of chest and abdomen, infections of the meninges, heart valve, or muscle, lungs, pleura, glands, joints, liver, kidney, colon, or appendix; recorded on the Chart under headings 2, 3, 4, 5, and first half of 6.

Under the third subject the structural defects of hernia and abnormalities of genitalia and rectum are included; also under these "Postural and Structural Defects" charted as last half of 6, numbers 7 and 8, are further grouped the common defects of the legs and feet; degenerative changes as indicated by abnormal reflexes or locomotion; positive Wassermann and anatomical stigmata are here included. Faulty body positions, which children at the imitative and imaginative age so easily acquire, naturally fall under Posture. Eye strain is here placed, because so often the abnormal head or shoulder position is the first symptom attracting attention of the examiner to eye complications. Common symptoms relative to temperature, bowel activity, sleep and appetite are grouped at the bottom of the column together. The examination as recorded in the practical everyday routine is made in sequence from 1 to 50 of the points specified, beginning with a general inspection while gaining the child's confidence. It is perhaps needless to add that the office nurse can readily learn to plot details of the examination.

Finally, the basic purpose of all this detailed work is to check preventable disease, and to establish normal and desirable habits during formative years. The method suggested brings an observable result by no means to be ignored in these days of changing creeds and shifting public opinion in the realization of a better understanding between patient, parent and physician. "An apple a day keeps the doctor away" conveys a sinister meaning to the mind of the parent, anxious over her child, yet fearful lest she fall into error in seeking advice until necessity demands. For successful corrective work a confidential relation between patient and physician is almost essential, and one of the far-reaching results of these periodic examinations, aside from the educational value to the parent and child, is that of continued friendly relations between patient and physician. Only with such a relation are we in a position to offer our services or to bring into the problem consultation at a time when the "ounce of prevention" can most avail; in fact, the understanding between the parent and the Pediatricist will perhaps ultimately evolve into an agreement covering years instead of from day to day, as at present, in order that the physician may give directions when he ought and as he ought. Thus, with a systematic supervision over the health of the Runabout, the Pediatricist not only has a comprehensive memorandum for reference and parental direction, but the Health Status of the child assumes a clear prospective, absolutely essential in the accomplishment of our aim.

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ECONOMICAL ASPECTS OF STATE HOSPITAL DISCHARGES AND PAROLES.

By M. J. ROWE, M. D., Mendocino State Hospital, Talmage, Calif.

During the two years ending June 30, 1918, there were 1472 patients under treatment as insane. Of this number some have been residents since the opening of the hospital in 1893, while 379 were admitted during the last two years. Their ages are between 10 and 93 years.

From among this number 182 patients left the hospital to renew their social relations independently or with the assistance of relatives or friends. Their relationship to the hospital at the time of leaving is shown in

TABLE I.

	Men	Women	Total
Discharged	55	12	67
Paroled	43	29	72
Absent 30 days on elopement.....	43	0	43
Total.....	141	41	182

Thirty-seven patients were discharged or paroled following manic depressive attacks. Among those discharged the duration of the first attack averaged 13.33 months and the hospital treatment for them 8.75 months, while the duration of multiple attacks was 8.66 months and of their treatment 7.64 months. The average length of first manic attacks was over twice as great as the average length of all manic attacks. First depressions average 13.5 months' duration, while the average for all depressions was 12.6 months. The character of the symptoms in the first manic attack led to hospital treatment for 11 of the 13.1 months' duration of the attack, while the first depressed attack received hospital treatment for only 8 months of the 13.5 months that the attack lasted, probably because he was troubling no one but himself. It is also notable that subsequent depressed attacks, having more insight, received treatment during 9.7 months of the 12.6 months' duration of the attack; which insight also undoubtedly accounts for those suffering from multiple attacks being under treatment throughout a much larger part of the attack.

Parole seemed preferable for 23 of these, in some cases to facilitate the return without the unpleasant features of recommitment, and in others because the patients were not fully recovered when returned to their relatives.

Five who were paroled returned to the hospital because of recurrence of mental symptoms after an average parole period of 6.7 months. All five had had two or more previous attacks of mania and two of them were subsequently again paroled and have remained absent to date.

Five others have been absent on parole an average period of 4.15 months.

Thirteen were discharged from parole as recovered after an average parole period of 6.15 months.

It appears on analysis of this group that the average parole period for those discharged following a first manic attack was three months and that the sum of the parole period and hospital residence is the same as the hospital residence period for the similar cases discharged on leaving. It also appears that those paroled following multiple attacks of

manic depressive insanity form a distinct group from those discharged at the time of leaving the hospital. The average duration of attack of both phases was twice as long as in the group discharged when leaving, and while the minimum age in the two groups was the same, the average age of those in the paroled group was 41.22, while in the directly discharged group it was 31.14 years. To this older group belong those patients having no one sufficiently interested to take the responsibility of parole and who, under present conditions, must remain in the hospital until more complete recovery is secured.

Ten cases of Dementia Praecox were discharged. Three were unimproved and were discharged in care of relatives who wished to assume the responsibility, that the patients might be near their friends. Four male hebephrenics, whose average age was 25 years 9 months, were sufficiently free from symptoms to be discharged as improved and be at least temporarily self-supporting after a hospital residence averaging six months.

One 19-year-old girl was so free from evidences of katatonia after 7.5 months' residence that she was considered a social recovery. A woman of 49 dropped her paranoid ideas and adapted herself so well that she was so considered after 2½ years' hospital residence.

Eleven patients who could not have left the hospital except under supervision were paroled and have remained out an average period of 6.47 months. Their average age was 28 years, and average hospital residence 8.98 months. Among these was a patient who, previous to his parole, had a hospital residence of 20 years 4 months, and who remained outside over 10 months.

One man adapted himself to a new environment and was subsequently discharged improved.

In all, a number equivalent to 14% of those admitted during the biennium suffering from Dementia Praecox were able to leave the hospital under present conditions.

Of 15 patients who were constitutionally psychopathic and who came to the hospital with mental upsets following added stress, 10 completely recovered from the disturbances leading to admission and were so discharged after an average hospital residence of 10.3 months. Two others were paroled after an average hospital residence of 7.4 months and discharged after parole periods averaging 4.5 months. One woman who was fanatically religious returned after 19 months' parole because of uncontrolled litigious tendencies.

Three patients diagnosed as paranoid states left the hospital. One man, aged 49, was markedly arterio-sclerotic and dropped his paranoid ideas as his physical condition improved and was discharged recovered. Another was improved after 10 months' hospital residence. One woman was paroled after 15 months' hospital residence. The ages of all were between 49 and 56.

Among the alcoholic psychoses, those quickly recovering from mental symptoms were retained for institutional treatment for the underlying alcoholism.

The results of trial in the cases of five general

paretics are various. One mildly demented man, who was discharged by court order and who physically was considered an arrested case, has been comfortable for over a year. Two patients, who each gave a history of conduct disorders, with mental dilapidation, cleared mentally during an average hospital residence of 9.25 months, and while still exhibiting the diagnostic neurological and serological findings, have been regularly employed at home for over a year. One demented patient was returned after three weeks' trial and one man died in convulsions 2½ months after leaving the hospital.

The other groups are too small for statistical study, but are included for analysis of the economical problems.

Forty-three men eloped and were absent one month or more. The results of these elopements are shown in

TABLE II.
RESULTS OF ELOPMENTS.

	Males	Age Years	Attack Duration Months	Hospital Residence Months	Elopement Duration Months
Voluntary returns	3	31.3	17.7	13	2.06
Returned by officers	5	25.2		114.84	1.72
Admitted elsewhere	2	28.5	148	123.5	.85
Discharged recovered	3	34.6	18.03	17.8	13.4
Discharged improved	2	34.	52.25	22.	2.51
Died	2				
Eloped (whereabouts un- known)	28	34.5	60.58	29.3	11.5
Total	45				
Counted twice	2				
No. Patients	43				

Voluntary returns were of patients diagnosed Dementia Praecox, Paranoid; Constitutional Psychopathic Inferiority and Manic Depressive Insanity.

The Dementia Praecox patient returned after two months' absence to secure the assistance of the hospital regarding his legal status. As he was self-supporting and apparently able to conduct himself normally in his new environment, he was discharged socially recovered. The Constitutional Psychopathic Inferiority returned after three months for the same reason and was discharged recovered. The Manic Depressive was a first manic attack under treatment 14.1 months. After an absence of 1.2 months he returned confused and mildly depressed and was retained as he evidently appreciated his need of treatment.

Returned by officers were five, all of whom remained out barely one month. Two were returned because of conduct disorder; two were mentally unable to hold employment, although quiet and willing; one was physically unable to work.

Two Dementia Praecox patients were apprehended and admitted, one to Stockton and one to Napa State Hospital.

Discharged recovered were two cases of Delirium Tremens, aged 30 and 50 years, after absence from the hospital of 9.2 and 22 months; and one epileptic who had lessened frequency of convulsions and absence of dream states during six months' hospital residence, was discharged after nine months' absence.

Discharged improved were one Dementia Praecox case, age 41, whose hospital residence was 40

months, and one Drug Delirium case, age 27, after a hospital residence of four months.

There died one Moron, age 40, whose hospital residence was 14.6 months. He was murdered in his bedroom in San Francisco after an absence of 8.5 months. There also died one Paranoid State, age 58, who was quiet and comfortable and was accidentally killed by a train ten days after eloping.

TABLE III.

ELOPED PATIENTS NOT ACCOUNTED FOR.

	Age Male-Years	Hospital		
		Duration Months	Residence Months	Absent Month
Manic Depressive	1 25	10.3	10.1	13.1
Dementia Praecox	19 35.6	71.8	36.8	12.25
Delirium Tremens	1 41.		2.33	12.66
Alcoholic Hallucinosi.	2 50.5	6.25	20.1	7.3
Prison Psychosis	1 36	39.9	36.9	5.
Epilepsy	1 23.		2.5	20.
Moron	3 21.6		10.6	8.6
Total	28			
Average	34.5	60.58	29.3	11.5

All of these patients but one Dementia Praecox were comfortable enough to be working.

It is probable that the four diagnosed as Manic Depressive, Delirium Tremens and Alcoholic Hallucinosi, made complete recoveries.

Among the others a past history of roving was very prevalent and it is probable that some of these have been admitted to hospitals in other communities. It is also very probable that more than half have secured employment during the present labor shortage, which makes them self-supporting.

Owing to the variety of psychoses, as well as of conditions of patients when leaving and also of methods of absents from the hospital, it quickly becomes evident that the economical aspects of the results of treatment of the insane in a State hospital cannot be considered without taking into account the medical side.

The average hospital residence of a patient discharged recovered was 6.905 months, which, based upon the present per capita rate, costs \$113.10.

The foregoing tables show that the parole periods in the various psychoses are as variable as the periods of hospital residence.

The cost of treatment during 15.4 months for the 22 who were absent on parole during the 5.56 months before their return became necessary, was \$252.09 per patient.

The financial saving to the State by the parole of the 75 patients leaving the hospital by this method is shown below. This, of course, cannot include any figures showing the additional saving by the large proportion of these who took up useful occupations immediately upon leaving the hospital.

Twenty-one patients were on parole 5.8 months before discharge and would have cost for hospital care during that period \$1995.08
 Twenty-two patients were on parole 5.56 months before their return and would have cost 2003.60
 Thirty-two have been on parole 8.64 months, saving 4528.74

Total saving by present parole system....\$8527.42

Of the 32 still on parole, it is reasonable to

expect that 18 will be eventually discharged recovered.

The patients now discharged from parole spend but 60% of the period of commitment actually in the hospital and it is not unreasonable to assume that those discharged when leaving could spend the last 40% of their commitments under outside supervision, which method would have saved the hospital \$2253.55 during the past biennial period.

The actual saving to the hospital, combined with earlier return to former occupations, makes the economic value of the parole system very apparent and suggests the advisability for financial reasons, if for no others, of extending the parole system to provide for the large number of patients who have no one willing or able to assume such responsibility.

It is impossible without reviewing a much larger group of cases, even to attempt an estimate of the number now in the hospital who could live outside, for a time at least, under suitable supervision, but the fact that so many of these who took the matter into their own hands and eloped were able to be self-supporting, is strongly suggestive that they, and undoubtedly many more, could do well enough under supervision to effect a large saving.

The discharged patient is provided with clothes and a small sum of money by the hospital. The paroled patient is provided with nothing and is dependent on his friends, and therefore the friendless patient, no matter how worthy, cannot be paroled.

This is manifestly unjust discrimination and it is to be hoped that some adjustment between the two classes can be made whereby provision shall be made by the State, or some benevolent organization, to meet the parole requirements of this friendless group.

THE USE OF CAMPHOR AS A STIMULANT AND AS A PNEUMOCOCCICIDE IN PNEUMONIA.*

By F. F. GUNDRUM, M. D., Sacramento, Cal.

The hypodermatic use of camphor dissolved in oil as a stimulant is too widespread to require introduction. All drug stores carry a supply of this drug in ampoules sterilized and ready for immediate exhibition. The injection of camphor in larger doses with expectation of producing a pneumococcicidal effect has not been so universally adopted but has been urged by Seibert¹ and Cruikshank² who report excellent results from this procedure. They recommend the hypodermatic injection of 10 cc. of a 30% solution of camphor in oil of sesame at twelve-hour intervals until the temperature shall have reached normal. Other authors, however, notably Head and Brooks³ are far from enthusiastic over the value of camphor as a stimulant, in fact these latter consider it quite inert. With the hope of decreasing our always robust mortality from pneumonia at the Sacramento County Hospital and also of de-

* Read before State Society, Santa Barbara, April 16, 1919.

¹ Discussed by Drs. D'Arcy Power, Brem, Fulton, Pottenger, Evans, Gundrum.

termining at any rate to our own satisfaction, the clinical value of camphor, I promulgated a new standard treatment for lobar cases. This standard treatment provided, among other things, for the hypodermatic injection of camphor. Our first dosage was as little as five grains but finding no untoward symptoms we increased the amount until each patient was getting fifteen cc. of a 20% solution of camphor in olive oil twice daily. The least troublesome site proved to be the abdominal wall. On account of the frequent changes of ward personnel, both of head nurse and interne not all lobar cases got camphor, whereas, also a few who were not lobar cases received a few doses. However, I have taken the entire hundred cases as a basis for this report. For those not treated are suitable for controls, and the broncho-pneumonias and untreated pneumonias offer an instructive contrast.

The effects on circulation were determined by taking a record of the pulse, of the systolic, and of the diastolic blood pressures just before the injection, again after an interval of fifteen minutes, one hour and two hours. Any specific effects were looked for in changes observable in the mortality, the duration, and complications found in those patients treated with camphor.

In the course of about eighteen months I was able to collect data satisfactory for study from one hundred pneumonias, which group was very readily divided into three classes:

1. Lobar pneumonias..... 66
2. Broncho-pneumonias 22
3. Untreated pneumonias 12

RESULTS IN THE LOBAR GROUP—EFFECTS UPON CIRCULATION.

The pulse changes may perhaps best be illustrated by a schema as follows:

	1. Unchanged	2. Raised	3. Lowered
After 15 minutes.....	25%	44%	31%
After one hour.....	6%	32%	62%
After two hours.....	18%	37%	45%

The maximum increase, the maximum decrease, the average increase and decrease together with the average total effect recorded from all observations follow. Plus indicates a rise in pulse rate and minus a fall.

	After 15 minutes	After 1 hour	After 2 hours
Maximum Rise	25	7	6
Maximum Fall	10	16	14
Average Rise	6	4	5
Average Fall	6	6	7
Average Total Effect.. Plus 1 Minus 2 Minus 2			

Effect on systolic blood pressure may also most easily be expressed by a table.

Percentages	Unchanged	Raised	Lowered
After 15 minutes..	39%	15%	46%
After 1 hour.....	28%	18%	54%
After 2 hours....	76%	0%	24%

The maximum rise and fall and total average effect similarly.

	After 15 minutes	After 1 hour	After 2 hours
Maximum Rise	3 mm	8 mm	0
Maximum Fall	20 mm	8 mm	6 mm
Total average effect minus 3 mm minus 1 mm minus 1 mm.			

Effect on diastolic blood pressure similarly.

Percentages	Unchanged	Raised	Lowered
After 15 minutes..	25%	25%	50%
After 1 hour.....	64%	0%	36%
After 2 hours....	43%	0%	57%
Also:			
	After 15 minutes	After 1 hour	After 2 hours
Maximum Rise	4 mm	0	0
Maximum Fall	14 mm	10 mm	9 mm
Average total effect minus 2 mm minus 2 mm minus 3 mm.			

The average totals for pulse and blood pressure changes are inconsequential and might easily arise in the course of the disease uninfluenced by drugs.

Specific effects would be expected to manifest themselves by appropriate changes in the mortality, duration, or complications of the disease.

Mortality: Forty five patients received camphor. The number of injections varied from one to fourteen and the amount of camphor correspondingly from 15 to 630 grains. The average number of injections was 5 and amount of camphor 210 grains. The mortality was 29%. This figure approximates the normal rate for this hospital, many of whose pneumonia admissions are handicapped by exertion, neglect and especially by a large alcohol intake. A study done in 1912 (4) showed a mortality of 30%. This rate has remained about stationary for at least the past eight years.

Duration: Average 6.2 days, not remarkable and slightly longer than the total average of 5.7 days for all cases.

Complications and sequelae.

Delayed Resolution	4.4%
Empyema	2.2%
Lung Abscess	2.2%
Psychosis (non-alcoholic).....	2.2%

Not an unusual array. Our experience with the camphor group shows no very great or noticeable difference from the usual. The affections accompanying the lobar pneumonia here were again approximately an average. They were

Alcoholic delirium	7 cases	4 died
Chronic nephritis	2 cases	2 died
Pulmonary Tuberculosis ...	1 case	1 died

Upon compiling the results of the cases who were treated without camphor we got the rather striking percentage; Mortality 4.9% (20 recovered, 1 died.) The complications were

Nonpurulent pleural effusion	1
Pregnancy (aborted 4th day)	1

The figure 4.9% is very far below our ordinary result. It deserves some investigation in order to clear our Camphor treatment of the suspicion of having been a detriment rather than a help. This comparison may be based upon

1. The smaller number in the non-camphor series which would probably show a higher mortality had more cases been in the group.

2. Sex: Had no bearing; the death rate of women was higher in both series than the total average.

3. Age: In the camphor cases the average was 49 years, in the non-camphor 30 years. This difference of nearly two decades could reasonably be expected to account for a substantial part of the difference in death rate. The pneumonia mortality curve climbs steadily with advancing age:

4. Complications accompanying the pneumonia.

(a), Alcoholic Delirium 7 cases, six got camphor, four died, one had no camphor and got well.

(b), Chronic Nephritis 2 cases, both camphor, both died.

(c), Pulmonary Tuberculosis 1 case, camphor, died.

Our basic rate of 30% mortality includes all cases entering with or having the disease regardless of complications. Taking into account the complicated cases and subtracting these ten we are left with the figure 17% for camphor cases, average age 49 years, and 5% for non-camphor cases average 30 years. The figure 5% is still quite low, but 17% for uncomplicated lobar pneumonia is an average, not at all an exceptional rate. I feel it justifiable to conclude that the camphor injections at least had no harmful effect upon the disease. Had there been any very great reaction to the camphor we should expect a superiority in results among those patients who received more than the average dose of 210 grains over those who got less. Classified according to dosage it was found that of those who received more than 210 grains 31% died and of those who received less 26% died, a trifling difference. It seems to us therefore that camphor has shown no effect good or bad upon the circulation or upon the disease itself.

Local complications from use of injections: Two patients did not absorb the oil. The injection remained unchanged for several days. Upon incision clear oil with a camphor odor was evacuated. There was one abdominal wall abscess.

Broncho-pneumonia cases admitted during this time numbered 22. Three who showed many pneumococci in the sputum got camphor. All died. The death rate of this entire group broncho-pneumonia was 41%.

Complications:

1. Alcoholic delirium	2	2 died
2. Morphinism	1	1 died
3. Erysipelas	2	1 died
4. Lung abscess	1	1 died

Untreated pneumonia: There were 12 who entered the hospital within 24 hours of the termination of the disease. None of these had had any adequate treatment and may be classified as untreated. Of these 58% died.

Complications:

Hemiplegia	1 died
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Conclusions.

1. Only solutions of camphor injected hypodermatically had no demonstrable effect upon the circulation of patients with pneumonia.

2. Camphor had no demonstrable specific effect upon the course of the disease.

3. The mortality from lobar pneumonia was 21%. Broncho-pneumonia 41%; untreated pneumonia 58%.

Capital National Bank Building.

References.

- Seibert, A. Munch. Med. Wchscht. No. 36, 1909.
- Cruikshank, W. J. New York State Jr. of Med. Feb. 1914.
- Head, J. A. & Brooks, R. C. Amer. Jr. Med. Science. Feb. 1913.
- Gundrum, F. F. & Johnson, E. E. Cal. State Jr. Med. May 1912.

FOCAL INFECTIONS AND NERVE REFLEXES AS RELATED TO THE EYE.*

By CLARENCE E. IDE, M. D., San Diego.

My reason for selecting this subject is that in the course of my work I spend considerable valuable time arguing with dentists and fellow physicians in the effort to convince them that pathological conditions in the eye many times have their real, original cause, or source, in diseased areas in the teeth especially, or the tonsils, sinuses, ears, parotid glands, or just as surely in foci of infection in other parts of the body, as the gall bladder, appendix, urethra, prostate, stomach, intestines, or elsewhere. In my experience the cases due to irritative reflexes from the teeth, over the fifth nerve, or toxins from foci of infection in the dental alveoli, have far outnumbered those due to reflexes or toxins from other organs. I will go further and claim that the percentage of irritative reflex and toxic conditions, as compared to all pathological conditions occurring in the eye, is greater than that of direct infection by pathological organisms floating in the blood stream or metastasis.

The nerve reflexes interfere with trophic function. Toxins are brought to delicate tissues which are damaged thereby and become the seat of a lesion. Sometimes both act together, the reflex irritation proving to be the predisposing cause and the toxins the exciting cause. It is a case of team work between a predisposing irritation, lowering nutrition, and an exciting poisoning of the tissues involved.

The type of condition set up in the eye as the result of products of bacterial action floating in the blood is described as toxic, and manifests itself as a plastic condition. If the anterior segment of the globe is involved a plastic exudate is evident in the anterior chamber. If the contents of the anterior chamber are aspirated for the purpose of making a culture, the track of the needle is soon the seat of a white plastic exudate. How many cases in which a plastic exudate occluded the pupil after a cataract operation presented such condition, not because the operator did not employ an aseptic technic, but because at that time the habit of investigating the teeth and general system carefully before such operations was not in vogue.

These conditions do not result in destruction of the globe, unless there is superadded direct infection by pathological organisms, but do result in loss of vision in a deplorable number of cases unless the cause is recognized and removed. I have failed to develop cultures in these cases when the exudate was aspirated and transferred to culture tubes of blood serum. Cases could be detailed in which the word of the patient's dentist was taken to the effect that the teeth were in normal condition in which a plastic exudate formed in the anterior chamber after a needling, in which radiographic films disclosed areas of disease in the alveolar sockets of one or more teeth. In other occasional cases it is the tonsils or sinuses or other focus. This simply means that when an operation

*Read by title at the meeting of the Southern California Medical Association, May 15, 1919.

is to be done on an eye the patient ought to be gone over by an internist and syphilographer and given a clean bill as to foci of infection, syphilis and internal gland secretion, while we, or our associates in the surgery of the head should search for possible sources of infection in the head and eliminate them.

That many a case in which foci of infection exist does not show eye symptoms or lesions is beyond the point. Such a patient is lucky as to his eyes, that is all. If not in the eye, harm is done somewhere else in the body, as the heart valves, or lining membrane of the joints. Casey Wood, in the volume on the eye of the Practical Medicine Series for 1918, commenting on a paper of J. J. Wynn, states that he does not believe that the case for this source of disease has yet been definitely made out, stating that because a man has an iritis and a well-marked pyorrhoea, that the cure of the latter is followed by a disappearance of the former, (especially when the former is treated with atropine, hot applications and time) does not prove that the one is dependent on the other. In criticism of this comment of Dr. Wood's I want to say that I would welcome an opportunity of proving the connection by abstaining from all local treatment of such eyes and bringing about a cure of the eye condition by having the teeth alone treated by a competent dental surgeon. I would also welcome an opportunity of proving that the element of time is not necessarily called upon when modern treatment is applied to iritis. It is understood that in such cases as are mentioned above thorough investigation has been made to narrow the cause down to the focal infection in one or more locations. At the eye clinic of the University of California, San Francisco, where I worked for four months after leaving army service, we referred such cases to the internists, the radiographers, the syphilographers and the dentists. When negative reports came from all but the dental surgeons and radiographers it was fair to conclude that by a process of elimination the cause of the plastic condition in the eye had been narrowed down to the pathological conditions found in the teeth—or tonsils in other cases, or sinuses in others, as the case might be. When one has pursued scientific methods in such investigations and has not relied on guessing he is competent to make definite claims. Such remarks as quoted above do harm by influencing men who, rather than doing their own thinking are governed by the opinions of others whose length of experience or reputation appear to lend weight to their claims. The cases of iritis, for instance, which used to require weeks for cure are now healed in days, even hours, by attention to the focus of infection and modern treatment. These remarks also apply to industrial cases in which some ophthalmologist follows old methods of treatment, without ever thinking of focal infection, while the man's vision is going, whereas if he would look into the patient's mouth, examine his nose and refer him to an internist for investigation, he might conserve vision and at the same time bring about an economic saving.

To refer briefly to the nerve supply of the eye and its connections—

NERVES OF THE ORBIT AND EYE.

(1) The ophthalmic nerve, or first division of the Fifth Cranial Nerve, arises from the Gasserian Ganglion, is sensory and supplies the eye ball, lachrymal gland, conjunctiva, the mucous lining of the nasal fossae and the integument of the eyebrow, forehead and nose. It has lachrymal, frontal and nasal branches, viz:

(a) The lachrymal branch sends a filament to the dura mater; communicates with the temporo-malar branch of the Sup. Max. nerve; supplies the lachrymal gland and conjunctiva. It communicates with the 6th and 3rd, and sometimes the 4th cranial nerves.

(b) The frontal branch supplies the integument of the upper lid, communicates with the 7th cranial nerve and ends as supratrochlear and supra-orbital nerves.

(c) The nasal nerve has a branch to the ciliary ganglion. The long ciliary nerves of the latter supply the ciliary muscle, iris and cornea. The infratrochlear branch of the nasal supplies the integument of the eyelids, side of nose, conjunctiva, lachrymal sac and caruncula lachrymalis. It communicates with the 3rd cranial nerve by the ciliary ganglion, and with the sympathetic by the same ganglion. Meckel's ganglion communicates with the Inf. Max. branch of the 5th, 9th and 10th cranial nerves and the submaxillary ganglion.

(d) The orbital branch of the 5th nerve ends in temporal and malar branches.

It is to be noted that this branch of the 5th nerve communicates with those cranial nerves supplying all the muscles of the eye, intra as well as extraocular, and with the facial nerve. To mention the structures supplied by this nerve, or by the nerves with which it communicates, over which it can send its reflexes and influence nutrition, is to enumerate all the structures of the eye.

The tooth lesions which have come into my experience as causing these reflexes and toxic lesions are: Impacted teeth, ectopic teeth (as supernumerary tooth in the antrum, unerupted tooth lying horizontally in the alveolus along the roots of neighboring teeth, impacted wisdom teeth lying on their side and developing against the roots of teeth in front) pyorrhoea, alveolar abscess, periodontitis resulting in a thickened club shaped root, gas in improperly filled nerve canals, roots of teeth (molars) pressing on Inf. Max. nerve in mandibular canal, abscess involving this same nerve and canal.

The alveolar abscesses bring about destruction of the bone of the alveolus resulting in osteoporosis or rarefaction or complete absorption of bone. I have a plate showing such a cavity which is very sizable, the roots of three teeth hanging free in it. This is in the lower jaw, two incisors and the cuspid being the teeth involved. Sometimes necrosis of the jaw results with separation of a sequestrum. Several of my cases have shown this and the condition was not discovered until I had films or plates taken in search of a focus of infection. Many times disease of the antrum which is causing eye symptoms is not primarily that but is secondary to disease of the bicuspids beneath. I have found it a waste of time to treat the antrum without having

neighboring teeth filmed to determine whether the antrum condition is primary or secondary.

The literature of this subject is sufficiently voluminous to be interesting. As long ago as 1795 Richter wrote regarding the connection between dental irritation and affections of the eye and ear. In 1817 Bier described a case in which contraction of the visual field was done away with by extraction of a carious tooth. Jonathan Hutchinson, of London, in a systematic paper upon this subject, reported many cases of defective vision, in children and adults, which he reported effectually relieved by the removal of pathological conditions discovered in the mouth. Wright reports the cure of a corneal ulcer by the extraction of a carious upper molar on the same side. McCurdy, in his *Oral Surgery*, writes of visual disturbances and pupillary irregularities, which appeared to be dependent upon grave lesions of the brain, as promptly clearing up after a correction of defects in the teeth.

Dr. Joseph G. Turner, F. R. C. S., writing in the *Practitioner*, London, January 1910, on General or Remote Infection of Pyorrhoea (Oral Sepsis) says: One infected tooth may be too much for some people, and in fact, sometimes is, while a mouthful may not hurt others. He lists as resulting from diseased teeth, corneal ulceration, cyclitis, keratitis punctata, secondary cataract.

Reber, of Philadelphia, in *Ophthalmology*, October 1904, under the title, *The Relation of Diseases of the Eye to Those of the Teeth*, concludes: That the ophthalmologist should seek the assistance of the dental surgeon in all cases of unexplainable paralysis of the accommodation, dilation of the pupil, palsy or spasm of the external ocular muscles, rebellious corneal ulcer, phlyctenular disease, lachrymal fistula, orbital cellulitis, abscess, caries or periostitis, and in threatening glaucoma without apparent cause. That the dental surgeon should refer to the ophthalmic surgeon patients that develop any ocular symptoms whatever, and in particular those exhibiting altered pupils or accommodation, lowered vision, painful eyeballs, and swollen lids or orbital margins, with prominence of the eyeball. Reber also says: Eye strain in certain diseases of the eye may give rise to neuralgias along the dental branches of the fifth nerve as though the teeth were the primary offending cause.

Garretson says: A diseased tooth may express itself in any part of the body.

Reber lists as resulting from disease of the teeth, pupillary dilatation, conjunctivitis, cycloplegia or failure of accommodation, absolute blindness (reflex amaurosis), loss of eyeball, even death.

Sir Wm. Lawrence reports the case of a man, aged 30, with blindness due to abscess of a first upper molar. A small splinter of wood was found on the fang on removal of the tooth. Vision returned in this case after blindness of 13 months.

Schmidt-Rimpler and Power, *Nothnagel's Spe. Path. u. Ther.*, 1898, Vol. XII, reports a case of failure of accommodation.

DeWitt, *Am. Jour. Med. Sci.*, Vol. CX; man, aged 31, had blindness of left eye, due to disease of first right upper molar. The tooth was found to be a shell with a fistula extending into the

alveolus. Extraction gave relief and vision returned.

Lardier, *Rec. d'Ophthal.*, 1895. A boy, age 8, had conjunctivitis with cloudy cornea, followed by blindness. Upper bicuspid was removed and vision returned.

De Wecker, *Klin. Monatsbl. f. Augen*, 1866. Woman, seamstress, age 28, had neuralgia of the upper jaw and was blind in the right eye, then blind in the left eye. Pupils were dilated, no reaction to light, eye grounds normal, five carious teeth were drawn and vision returned on that side. Then three teeth were extracted on the other side when vision returned on that side.

Redard, *Rec. d'Ophthal.*, 1886. Case of glaucoma. Sclerotomy done twice with no result. Extraction of carious tooth brought tension down.

Creniceanu, *Klin. Monatsbl. f. Augen*, 1886. Teacher, aged 63, had glaucoma. Iridectomy was done. Relief was temporary. Abscess of lower jaw developed. Tooth was removed. Eye cured.

Schmidt-Rimpler, *Graefe-Saemisch Handbuch*, 1875, says: Glaucoma may be due to dental irritation.

Mooren, *Beit. zur Klin. u. Operat.* Subject, Glaucoma, says: There undoubtedly exist a large number of cases in which glaucoma has been produced by continued irritation of a dental branch of the trigeminus.

Glaucoma is sometimes due to sphenopalatine ganglion irritation, the pain being relieved by injection of the ganglion.

Maddox, in his book, *Ophthalmological Prisms*, 1907, p. 166, states that deficiency of tonic convergence is sometimes due to reflexes through the fifth nerve, especially from carious teeth.

Darrier in his *Ophthalmological Therapeutics*, 1912, p. 275, refers to vesicular or bullous keratitis due to dental reflex.

McWhinnie, in the *N. Y. Med Jour.*, Vol. 98, No. 16, p. 745, refers to alveolar abscesses as cause of eye diseases.

Schmidt-Graefe's *Arch. Ophthal.*, Vol. 14, mentions part played by the teeth in the production of glaucoma. Priestly Smith in *Glaucoma: Its Causes, etc.*, 1879, includes diseases of the teeth.

Power includes diseases of the teeth as a cause of neuroparalytic keratitis.

Keyser in *Jahresbericht f. Ophthal.*, 1872, Galezowski, *Arch. gen. der Med.*, Vol. XXIII, Sari-guer, *Rev. Medic. de Seville* 1899, Brunshwig, *Jahresber. f. Ophthal.* 1877, Albert & Collyer, *Trans. Odont. Soc. Great Britain*, abstracted in *Correspond.-blatt f. Zahnarzte* 1891, p. 262, all report corneal ulcer as resulting reflexly from disease of the teeth.

Faucheron & Brunshwig, *Rec. d'Ophthal.*, 1881, report iridochoroiditis as so resulting. Schmidt-Rimpler, Power, and Seville in *Trans. Odont. Soc. Great Britain*, 1868, report zonular cataract, while Gell, *St. Louis Med Jour.*, 1873, reports optic atrophy as secondary to disease of the teeth.

As proof of the reflex, if any is demanded, dental neuralgia is observed as being secondary to eye diseases. C. S. Bull in the *International Dental Journal*, 1898, reported pain in the teeth of the upper jaw as a symptom of iritis and cyclitis, also

as a prodromal symptom of glaucoma. This testimony was also furnished by Mooren, Creniceanu, Javal, at the Congress Med., 1886; also by Schmidt-Rimpler and Kniess.

Menschueller, Rec. d'Ophthal, 1819, reported, girl, age 19, had dental neuralgia always on playing the piano. Was found to have a high degree of exophoria. Prism of 4 deg. base in each eye entirely relieved the dental neuralgia. It was found necessary to use the prisms only when playing the piano. Sewing, embroidering, etc., did not cause the odontalgia. It was only when using the eyes for the distance of the music at the piano that the strain was too much to be compensated.

Another case was that of a medical student, age 24, who had left upper dental neuralgia when studying. Was found to have a high degree of exophoria. Prisms two degrees were found sufficient to give relief.

In all these cases we see that irritation of one branch of the 5th nerve may give rise to symptoms in the region supplied by another branch. It is to be noted that eye strain, in certain diseases of the eye, may give rise to neuralgia along the dental branches of the 5th nerve.

Wm. Evans Bruner, A. M., M. D., Cleveland Annals of Ophthalmology, October 1912, writes on the relation of the teeth to the eyes. He mentions asthenopia and eyestrain as resulting from irritation by tooth fillings; also episcleritis and scleritis from alveolar abscess and necrosis of the jaw; also from gold crown irritation.

Coopman in La Clin. Ophthal., July 25, 1905, reports blepharospasm as caused by tooth disease.

The eye lesions which I have seen due to either a 5th nerve reflex or a toxin poisoning secondary to focal infections are:

I. Phlyctenular keratitis which occurs as the result of a nerve reflex, the cause being impacted teeth, gas in a dental nerve canal, due to faulty filling, or other irritative lesion. It is of course necessary to differentiate between the cases due to these causes and those arising in cases having tuberculosis or infected adenoids. A recent personal case was that of a girl aged 6. Tuberculin test was negative, Wasserman test was negative, sinuses normal by radiograph, laryngologist reported nose and nasopharynx normal, (tonsils and adenoids had been removed 3 years previously). Radiograph of teeth showed slow absorption of the temporary set, the films showing two rows of complete teeth (incisors and canines), no absorption of the temporary having occurred. The general condition of this child was excellent. Investigation narrowed the possible cause of the keratitis to the pressure of the permanent teeth on the unabsorbed roots of the temporary. The Wassermann test was resorted to because there was interstitial infiltration of the cornea, a small patch beneath the phlyctenule. The child had had a phlyctenule previously which resulted in an ulcer which left a noticeable scar on healing. Refraction showed hyperopia with hyperopic astigmatism which causing asthenopia was doubtless one element in the chain of causes which gave the child so much discomfort, photophobia being the most troublesome symptom. This is a sample of cases which come to the ophthalmologist all the time.

II. Neuroparalytic keratitis, corneal lesions due to trophic changes, consisting of a minute area of degeneration in which there is a pulpy condition of the tissues at the site of the lesion. If not cured by removal of the cause, in other words, if this condition continues long enough without relief, these areas result in a loss of substance which is generally called an ulcer, but which does not yield bacteria to a smear or culture, unless secondary infection occurs from the outside. These lesions consist of areas of degeneration or necrosis, interstitial, due to constant irritation of the nerves supplying the part, resulting in trophic changes, such irritation being supplied by dental reflex or nasal lesions.

An interstitial corneal lesion occurs, which has been erroneously called corneal abscess, the result of either trophic disturbance, caused by irritative reflex, or the advent of toxins to the part. The tissues do not break down, no ulcer forms, you can watch the lesion for weeks remaining in statu quo ante until the plastic exudate becomes organized and forms an opacity, or is fortunately absorbed. There are no bacteria in the part, there is a deposit, in the substance of the cornea, of the same plastic material which we find in abundance in the anterior chamber in other cases.

III. Phlyctenular conjunctivitis occurs from the same causes as phlyctenular keratitis.

IV. Anterior uveitis evidenced by a violaceous hue under the conjunctiva, circumcorneal injection, Descemetitis, the Descemet's membrane being wrinkled and smeared with plastic exudate, this exudate in excess falling to the bottom of the anterior chamber and forming a false hypopyon, edema of the iris, plastic exudate causing a posterior synaechia, sometimes a dustlike opacity of the vitreous immediately behind the lens, and in some cases an involvement of the lens revealed by a milky appearance of the anterior capsule and dustlike opacity of the lens substance which clears up on treatment. This condition differs from a uveitis caused by the presence of bacteria in the part, with true suppuration, by the fact that it continues for a long time without destroying the globe, the only damage consisting of those lesions due to the organization of the plastic exudate, as posterior synaechia, or occlusion of the pupil. The ciliary injection in these cases is frequently limited to a portion of the circumference of the cornea, sometimes extending only over one eighth or one quarter of this circumference, and the seat of this injection being tender on pressure locally. This condition is caused by toxins brought to the eye from a focal infection. The plastic exudate is sterile, no growth occurring on culture.

V. Iritis, or iridocyclitis, generally being part of a condition better called anterior uveitis or iridochoroiditis.

VI. Patches of scleritis or episcleritis revealed by circumscribed patches of redness and a violaceous hue. These are recurrent coming in one recent case weekly.

VII. Vitreous opacity, dust-like in character, occurs. This is seen in conjunction with other lesions such as uveitis, retinitis or choroiditis.

VIII. Contrary to what is the commonly ac-

cepted idea or opinion, retinitis is a common disease. If careful ophthalmoscopy is done in each case which comes to us, under mydriasis, the percentage of those presenting areas of colloid degeneration in the retina, which are evidence of past inflammation is large. When these are discovered in active condition a process of elimination of possible causes by the employment of the Wassermann, tuberculin and other tests, such as the complement fixation, and by thorough examination by an internist will frequently narrow the possible causes down to one and that a toxæmia, the source of the toxin being found in a focal infection. In the largest number of cases in my experience this focus is in the teeth. In other cases the retinitis is caused by the poison of the acute infectious diseases as mumps, scarlet fever, mastoiditis, etc. Recent experience among soldiers furnished me with cases of retinitis secondary to mumps and mastoiditis due to streptococcus infection.

IX. Neuroretinitis occurs less commonly than definite circumscribed areas of retinitis. Recall the report of contraction of the visual field disappearing on removal of a focal infection. In one recent case of the writer's there was well marked neuroretinitis in which vision was almost completely lost. I believe this was due to the fact that a diagnosis of etiology had been made as sun exposure, the soldier having looked at the sun without smoked glass during an eclipse. My predecessor had put him on iodide of potash without making further search for cause.

X. Glaucoma. The presence of this condition always demands a search for a possible cause in a focal infection or a reflex from irritation of the dental branches of the trigeminus.

XI. Irregularity of the pupil evidencing weakness of segments of the iris. This condition is found when no history of past iritis with posterior synechia can be elicited.

XII. Paresis of accommodation due to nerve reflex.

XIII. Paralytic, irritative (sympathetic) dilatation of the pupil.

XIV. Retrobulbar optic neuritis.

XV. Paresis or spasm of the extraocular muscles.

XVI. Imbalance of the ocular muscles—the phorias. Maddox—Convergence Insufficiency.

Condition reported by others which I have not seen are further:

XVII. Zonular cataract.

XVIII. Lachrymal fistula.

XIX. Reflex amaurosis.

XX. Optic atrophy.

XXI. Blepharospasm.

XXII. Orbital cellulitis.

XXIII. Orbital abscess.

XXIV. Orbital caries.

XXV. Orbital periostitis.

Besides these lesions already enumerated we find a group of conditions such as simple eye pain, supraorbital neuritis or neuralgia, photophobia, lachrymation with epiphora, due to irritative nerve reflexes.

Some of these conditions are prone to appear in recurrent attacks. Some give a history of "blood-

shot eyes" appearing every so often, or patches of scleritis or episcleritis, or plastic iritis, or attacks of blurred vision. Finally the eyes fail to recover so easily from these attacks and the patients present themselves with the beginnings of a more serious condition, when degenerative changes have set in.

Such conditions are found in industrial cases naturally. The predisposing cause, the focal infection or dental irritation, has been acting for some time, then an injury, the exciting cause, is added and a serious condition presents. As an example, I have recently treated a case of anterior uveitis in a man whose left eye had been injured some months previously by a piece of stone flying from a pickaxe. One ophthalmologist treated him for a long time failing to heal the resulting ulcer. Then the man was sent to Los Angeles for treatment. Finally the ulcer was healed with a macular scar involving the whole pupillary area. In April he was sent to me with an anterior uveitis, the cornea being hazy, Descemet's membrane wrinkled and covered with plastic exudate, pupil fixed, iris muddy, pupil dilated to 6 m. m. (not by atropine), globe red and presenting a deep violaceous hue. There was intense lachrymation and photophobia. The condition was characteristic. If it had been an infection with pathological organisms locally the eye would have been lost. But it was one of the plastic cases caused by toxins. Examination of the mouth showed a foul condition; extreme pyorrhoea which had existed for years. The man had never used a tooth brush. The eye cleared up perfectly when the teeth had been attended to, several of them extracted. If the ophthalmologist who treated the ulcer had looked into the man's mouth the latter would, I feel sure, not have lost 14/15 of the vision of that eye. Of course the ulcer was caused by the action of pathological organisms, but the reason two oculists could not heal it for several months was that the tissues had had their resistance so lowered by the action of toxins they could not respond to treatment. I can recall several industrial cases in which this same state of affairs obtained.

The time will come when radiography of the teeth, sinuses and other suspected regions will be even more common than at present. We should labor to bring about a reduction of the expense of securing radiographic films and plates. It is common for the taking of the plates to be done by assistants, which reduces it to a mechanical procedure. This without interpretation of the plates ought not to be so very expensive. I prefer to interpret plates for myself.

This consideration also brings into relief the great value of group clinics. In order to make an accurate, scientific diagnosis of an eye condition it is frequently necessary to make a tuberculin test, a Wassermann test, a complement fixation test, to have X-rays and a medical examination. A special maximum fee for each of these is beyond the financial ability of a fair percentage of those who need them. Until such arrangements are made as will allow of the securing of these benefits at a reasonable, or rather a cost possible to meet, we are not going to conquer these conditions.

Another important consideration in connection

with this subject is the fact that we must break away from what I call text-book treatment and follow what in contradistinction might be called monograph treatment. For example—the appearance of a case of iritis means often the use of atropine, hot applications and time—nothing more unless a search is made for syphilis or gonorrhoea as a cause. At the present time the appearance of a case of iritis should mean more than this. Text books are written which furnish not only the actual knowledge and opinions of the author, but include also a mass of material copied from older works back to the beginnings of a specialty. Acquisition of knowledge regarding etiology ought to involve the creation of new methods of treatment. Each pathological condition we meet has relation, through intricate ramifications, with various possibilities as to causation and means of relief. By the time a work is written and published therapeutic possibilities have developed beyond what is recorded therein. Then, too, some valuable additions to our knowledge, for some reason, lie buried away unnoticed by the many. As an example, what may be accomplished by the use of subconjunctival injections is evidently not the possession of the many. The use of this valuable agent is occasional or exceptional, taking ophthalmologists as a whole, to judge from what I observe from day to day, whereas it ought to be in daily, familiar use.

Time allowance forbids the detailing of individual cases, which would be tedious at best. Suffice it to state that not a day passes but what some such cases present themselves for relief.

Those who pass over these claims with a laugh and shrug of the shoulders, or claim that this matter of focal infection is overdone are due to wake up later and find themselves out of the running. Just as the Wassermann test has effectually reduced the number of idiopathic conditions we formerly studied, and the tuberculin test has further contributed to this end, the study of the damage done to delicate tissues by toxins from focal infections has cleared up the causation of some conditions concerning which we were formerly forced to say—I don't know.

WILL THE WAR INFLUENCE THE PRACTICE OF MEDICINE, AS A BUSINESS *

By JOHN C. KING, M. D., Banning, Cal.

We hear much of reconstruction after the war. The meaning of the term, as applied to medicine, is quite as vague as when applied to business. No one knows its significance. Business men either fear or hope for certain changes. The ones they fear they call destructive; those hoped for they term re-constructive. Leaders of medical thought and writers of editorials in Medical Journals have expressed the conviction that the war has resulted, or will result, in certain profound, though as yet undefined, changes in the

relations of physicians to each other, to the public or both. Among other points, stress has been laid upon the supposed facts that returning soldiers and their friends will demand a higher grade of professional ability than they had been accustomed to receive prior to the war; that more intense specialization will be required; that fewer fads and isms will be tolerated; that better hygienic conditions will be demanded; that owing to experience in camp and field physicians themselves have undergone inscrutable changes for the better; that owing to these and other considerations the practice of medicine, as a business, must adapt itself to new conditions. To most of these premises I respectfully dissent.

In round numbers some 30,000 members of the American Medical Association have entered the army in some capacity. Most of them have received a few months of intensive training along lines that would fit them for adaptation to army requirements. Many of these men will return bigger and broader minded; a few will have deteriorated; most of them will be about what they were before. In many cantonments the standards have been ideal; in others, the reverse. In each instance the result has depended, largely, upon the commandant, upon his executive ability and his power to correlate the forces at his disposal. The same medical men who attended the soldiers before the war cared for them during their period of service and will look after them in the future. It should be remembered that gynaecology, obstetrics, pediatrics and many other departments have, of necessity, been neglected by the mass of army doctors who have hitherto, and who must in the future, depend upon that sort of work. Undoubtedly, certain fields of medical endeavor have been stimulated by army experience but the average doctor will be neither better nor worse. I have talked with many returned soldiers. They have expressed the same ideas of medical men we have heard for years; the same idolatry, the same bitter criticism. Christian Science and occult healers will continue to enjoy the usual percentage of votaries.

Most of the returning doctors will go back to former locations. For a few months they will enjoy a little prestige and their offices will be popular. In time they will sink or rise to their own level, just as before the war. Some thousands will seek new fields; they have broken old associations and the lure of change will attract them. Many will make good but the average man will find it as difficult to meet competition and to build up in the new as in the old environment.

I do not believe that so-called "reconstruction" will materially affect the business side of medicine. There is, however, a type of reconstruction badly needed. We are prone to condemn the man who practices medicine for money. Science is so fascinating; the alleviation of suffering so enticing that we strive for professional repute and a large clientele regardless of financial return. We forget that other men, working in other lines, are as humanitarian and as altruistic as we. The

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real lawyer knows that law is the basis of human freedom. The real business man strives to make the world an easier and a better place to live in. Service is the motto of the day. And yet, these men measure their success by the money they make and save. Why should we have a different standard? As a rule, the accumulation of a competence is the measure of a man's intellect, of his industry, frugality, self-control. Whether we will or no, that is the measure the public applies to us.

It is proverbial that the doctor is a poor business man; but the proverb implies contempt, not excuse. Within a short time a physician, twenty years resident in Long Beach, died in a charitable institution, his friends buried him. Another, for a quarter of a century an honored professor in a medical college, died in Los Angeles County Hospital and was buried by friends. A third died and left a destitute family. All had acquired large business and prestige. These are not unusual instances. How many doctors do you know who, after years of labor, can retire with an income of three or four thousand per year, accumulated from professional activity? We have done wrong to ignore the business aspect of medicine. During the late campaign for social insurance one of its prominent advocates insisted that a physician should be satisfied with an income of \$3000 per year. I wondered what part of a doctor's overhead expense that would cover; auto, office rent, books, instruments, journals, postage, license, insurance, societies, drugs, dressings, etc. How far it would go toward giving his children a decent university education; what kind of household expense it would support; in how many years it would enable him to save, say, \$50,000 for his old age.

From my standpoint, the \$3000 per year doctor, with a family, must become a back number because he cannot spend enough money to keep up with professional advances. He will become a burden to his children, to his friends or to the public. The doctor whose fees are small and whose collections are poor must be content to endure less than mediocrity. He cannot keep abreast of the times. He will, furthermore, become a professional parasite because of the temptation to accept commissions from druggists, to split fees with so-called specialists or to do other and equally dirty work. And yet, I am told the income of the average doctor is below \$3000. Many of my professional friends are making around \$5000 a year but are saving nothing. A few make as high as \$10,000 yearly, yet save little. A very few make from ten to thirty thousand.

I believe, that with proper business judgment, most men who collect from two to five thousand could double their incomes without increasing the amount of work they do. I believe that all who collect from five to ten thousand can save enough to retire with a competence at the close of the average professional life. We do not, as a profession, require reconstruction along scientific lines. In them, we are advancing, as we should. We do need to reconstruct our ideas of business and

of frugality. The war has taught the latter lesson to thousands of men, and some of them may be doctors.

Business sense can be acquired by most of us if we will study business methods as earnestly as we do laboratory methods; realizing the futility of the latter if they do not lead to business success. I am quite familiar with the axiom "art for art's sake" and with its synonym "knowledge for its own sake." Still, as practical men, we should improve our financial position; otherwise we cannot procure either art or knowledge. We cannot do this by adopting resolutions or passing fee-bills. It is up to each man individually. It should be emphasized that one does not make money because he is a good doctor but he can only become a good doctor if he makes money. The books, societies, post-graduate work needful to make him "good" can only be procured by money.

The other day a general practitioner complained to me of injustice he had suffered. He had made one visit to a patient, \$2.50; assured her that to save her life an operation must be done; took her to a surgeon who operated and received \$150 and who, then, selfishly refused to divide the fee. I presume this man made his bill read "To one visit, \$2.50." Had the bill read "To examination and expert opinion regarding the necessity of a major operation, \$25. To selection of a surgeon especially qualified to do the operation, \$15" the patient would have paid and would have realized the value of the service rendered. I am not guessing. Patients have asked me to select a surgeon, other than myself, and I have charged from \$25 to \$50 for such service. I earned the fee because my knowledge enabled me to select the surgeon specially qualified to do that particular work, and because the patient knew I would not select the surgeon because of any commission he might pay. I became the agent of the patient, not of the surgeon, and I earned my fee as agent. I have been offered business in return for a division of the fee but have always replied, "serve your patient to the best of your knowledge and charge him for it."

The problem of charging for consultation is another weak point. The attending physician should always charge the same consultation fee as the consultant, unless the latter is called from a distance. The attendant is not supposed to be inferior to the consultant; they are presumed to meet as equals. This presumption can only be maintained by equality of fee. If the attendant charges little or nothing he voluntarily assumes the badge of inferiority. The old code of ethics of the American Medical Association strenuously insisted upon this point.

All these are merely illustrative examples to prove that we must reconstruct our business methods—or sink to the level of the \$3000 per year man. By that, we do not mean the man who is starting or who has, or has not, reached a given income. We refer to men who, for years, have settled down with apparent satisfaction to an income insufficient to enable them to accomplish what every man ought.

Immunity

The Journal will express no opinion of and assume no responsibility for the views of "Immunity" correspondents. They must win or lose on their own merits by abounding in their own wisdom, and each reader must appraise each communication for what it is worth and take it for better or worse.

Communications will not be signed when published, but the author must be known to the editor. Send on your complaints, your kicks, your knocks, your boosts. We want constructive and destructive criticism. Air your pet hobbies. You are not limited to your own town or the medical profession.

To the Editor:

Does your advertisement on the front page of the Journal which speaks of trusses and ruptures have any symbolic significance of an imminent rupture within the body of the State Society. If so, who will supply a truss? Why not cut it out?

COLUSA.

To the Editor:

When it comes to the League for the Consternation of Public Health and the State Society, which is the tail and which is the dog? Which one has the wag?

I enquire to know. Hoping you are the same, I am yours from

MISSOURI.

Book Reviews

Symptoms of Visceral Disease. By F. M. Pottinger. 328 pp. Illustrated. St. Louis: Mosby. 1919. Price, \$4.00.

This is an applied physiology of the vegetative nervous system, an explanation of symptoms in terms of autonomic nerve physiology. While there is a considerable fund of information contained therein, it is doubtful if the message which the author brings warrants 328 pages. By far the greater part of the book consists of matter equally accessible in Luciani, Starling, or other freely quoted physiologists. None the less, as a compilation of the opinions of the acknowledged leaders in modern physiological research, it is a good source of reference and the clinical deductions of the author are of interest, even though one may not always agree.

E. W. T.

The Higher Aspect of Nursing. By Gertrude Harding. 12mo of 310 pages. Philadelphia and London: W. B. Saunders Company, 1919. Cloth, \$2.00 net.

This book deals in an interesting and unique manner with faults of character and bad habits which the exigencies of nursing are likely to intensify and even to create. It discusses the temptations and conditions that lead to their development and the evil consequences that are likely to result if they are not curbed. Also, it gives very definite advice regarding the means of overcoming such faults and it points out the necessity for nurses to keep the higher ideals of nursing in mind if they wish to retain a permanent interest in their work. Instructors of nursing will do well to advise their pupils to let this book form part of the reading required with their study of ethics.

Training School Methods for Institutional Nurses. By Charlotte A. Aikens, formerly director of Sibley Memorial Hospital, Washington, D. C.; formerly superintendent of Iowa Methodist Hospital, Des Moines, and of Columbia Hospital, Pittsburgh; author of "Hospital Management," "Studies in Ethics for Nurses," etc. 12mo of 337 pages. Philadelphia and London:

W. B. Saunders Company, 1919. Cloth, \$2.25 net.

This book, as the author states in the preface, is intended to aid head nurses and other executives in schools of nursing to solve their problems and to form a basis for such instruction of senior pupils as will fit them for accepting responsible institutional positions. Particularly valuable chapters are those dealing with: methods of teaching; means of conserving hospital supplies; systems of training; and the responsibilities of the head nurse to probationers and juniors.

The Operations of Obstetrics. By Frederick Elmer Leavitt, M. D. 466 pages, 248 illustrations. St. Louis: C. V. Mosby Co. 1919.

The author attempts to "present the subject of obstetrics from the operator's point of view." He goes very superficially into the indications for the various procedures and contents himself in most instances by simply setting forth the steps in the operation. The obsolete procedures are described as fully and carefully as the universally accepted ones, and it would be very difficult for the general practitioner or the medical student to discriminate between the good and the bad. Nothing new has been added, in fact some of the newer methods have been omitted. Under anesthesia, for example, no mention is made of nitrous oxide and oxygen, while twilight sleep is mentioned rather favorably.

The illustrations are in great part taken directly from other works, due credit being given these originals, or redrawn by the author's own artist.

On the whole, the book is no better than the usual textbooks and will scarcely find favor with teachers or students of obstetrics.

H. A. S.

Laboratory Manual for Elementary Zoology. By L. H. Hyman. 148 pp. Chicago: University of Chicago Press. 1919. Price \$1.50.

This laboratory manual was prepared for classes in elementary zoology at the University of Chicago. It is practical and answers the purpose for which it is intended.

L. E.

Proteomorphic Therapy and New Medicine. An Introduction to Proteal Therapy. By Dr. Henry Smith Williams. 304 pp. New York: The Goodhue Company. 1918.

This book deals with a series of theories and fine drawn hypotheses in support of the contention that certain foreign proteins of vegetable nature have power to ameliorate, or cure cancer, rheumatoid conditions, asthma and psoriasis, tuberculosis and other diseases. The work done in certain phases has the stamp of scientific accuracy. In other places it is of a most loose and unconvincing type. It would take a great deal of time to analyze and disprove many of the absurdities in this book. So, at the risk of doing an injustice to some of its real worth, it must be classified as a poorly digested serological potpourri. It is to be recommended to those who have time to waste on such tangent reactions in science as a source of amusement only.

S. P.

Military Surgery of the Ear, Nose and Throat. Medical War Manual No. 8. By Hanau W. Loeb. 176 pp. Philadelphia and New York: Lea & Febiger. 1918.

This little vest pocket manual was authorized by the Secretary of War and is an attempt to bring together in a critical way all the literature on ear, nose and throat work which came out during the war. Naturally, one turns with greatest interest to those things which were incident to the war itself, and the chapters on labyrinth concussion and on reconstruction and re-education are well worth special attention. The gunshot injuries of the ear and the accessory sinuses have brought out

nothing new in the way of treatment, the work being handled on general surgical lines. Colonel Isaac Jones is quoted in full on the examination of the internal ear and is evidently going to be accepted as the final tests for aviators both in this country and abroad. The last chapter is entirely given over to a bibliography of the subject and is invaluable. It is curious to note how much German literature was available even during the height of the war.

H. H.

County Societies

ALAMEDA COUNTY.

The first meeting after its vacation held by the Merritt Hospital staff, Monday evening, August 4, was interesting and instructing.

Dr. A. M. Smith gave a paper on "Enlargement of the Thyroid Gland," which was discussed by Doctors Rothganger, Ackerly, Smith, Emerson, Dukes and Coleman. Dr. C. A. Dukes spoke on "Vaginal Hysterectomy," employing the projection lantern for illustration. Doctors taking part in the discussion of this subject were A. M. Smith, Abbott, Coleman and Rothganger.

During the serving of refreshments Drs. Alvin Powell and Warren Allen, who have just returned from overseas, reviewed part of their work in army life.

Dr. William Palmer Lucas, University of California professor, has been honored by France, according to news received at the State University, having been named a Chevalier of the Legion of Honor. He was decorated sometime ago with the highest medal of the French government, in recognition of his work in combating epidemics during the war. The award of the Legion of Honor, according to the notice that accompanied the news, was made at the request of hundreds of French people.

The active interest which the medical profession and the people of Alameda county are taking in the improvement of public health was evidenced at a dinner at the Hotel Oakland on August 7. Three hundred representative people came as the guests of the Health Department of the City of Oakland and the Health Center of Alameda county.

Daniel Crosby, M. D., Health Officer, acted as toastmaster and paid many merited compliments to the splendid work which the members of the Alameda County Medical Association had done for the advancement of public health.

Dr. William Thompson Sedgwick of Boston, who has been lecturing on public health topics at the University of California during the summer session, was the chief speaker of the evening and his address held the closest attention of the audience. He was followed by Dr. Richard A. Bolt, who has recently been appointed Medical Inspector of Public Schools of Oakland and Berkeley and Director of the Public Health Center of Alameda county.

Dr. Bolt pointed out the many familiar facts that confront the practicing physician in his daily health work. The wide interest that was aroused and valuable information distributed in reference to Child Welfare during this year was stressed by the speaker and summarized in these words:

"The mother is the environment of the infant; the school is the environment during school age, but the environment between two and six is the No Man's Land of childhood. It is the inalienable right of every child to be well born and to be properly nourished and reared. This can only be done by a very close co-operation of the health authorities and the school authorities in the instruction of our motherhood.

"The time is rapidly approaching when all social agencies will see the necessity of federating their efforts so as to obtain the largest amount of serv-

ice for the community and avoid overlapping and competition."

At the mention of the name of Miss Annie Florence Brown there was enthusiastic applause, the audience rising to its feet and standing in honor of the leader of the new experiment—The Health Center. Miss Brown eloquently described her visit to Atlantic City and to the National Convention of Social Workers. She brought helpful data from that convention and outlined the hopes, aspirations and ideals of the men and women who are becoming interested in public health activities.

Among the members of the Alameda County Medical Association who attended the dinner were the following: Drs. Pauline S. Nusbaumer, William H. Strietman, Lemuel P. Adams, E. E. Brinckerhoff, E. N. Ewer, Dudley A. Smith, W. S. Porter and George Reinle.

LOS ANGELES COUNTY.

Special Meeting of July 25th.

Col. Leon de Page, chief surgeon of the Belgian army, as the representative of the King of the Belgians, expressed the thanks of the King and people of Belgium to the citizens of the United States for the timely aid in the great war, at a dinner given by Dr. Wm. T. McArthur in the California Club. Some of Dr. McArthur's friends were invited to participate at this sumptuous feast of physical and mental food.

Dr. McArthur eloquently eulogized the heroic part Belgium took in the war. Several others paid tributes in glowing terms and drank toasts of "aqua pura" to the King and the people of Belgium. Even Caesar, ages ago, could not conquer the Belgians.

Col. de Page, among the other pleasant things, said that in his youth, when studying the map of the world, he thought Los Angeles way off somewhere in heaven inhabited by angels. Since then he had heard of the city's wonderful growth but was nevertheless greatly surprised to see such colossal buildings and the many beautiful avenues; but notwithstanding these worldly changes he still believes that angels dwell in Los Angeles.

At 8:15 the company strolled up to the Normal Hill Center where the Los Angeles County Medical Association was to meet in the Auditorium.

Col. de Page and his interpreter Capt. Van der Velde were becomingly introduced by the president of the Society, Dr. Wm. T. McArthur. After hearty applause of welcome, Col. de Page began in French and Capt. Van der Velde "pari passu" translated every few sentences, by telling how Belgium was invaded by the Germans August 4, 1914, and then dwelt upon his subject of war surgery.

At first, he said, the situation was deplorable because patients had to be taken 60 miles behind the line which took 48 hours from the time they were wounded. Rapidity was necessary in this surgical work. Later the distance to the hospitals was reduced to five or six miles and mortality was thus reduced from 65 per cent. to 40 per cent. Another important factor was continuity of treatment. Instead of patients being sent on so that the surgeon lost all track of them and never learned the result of his treatment, the hospitals were enlarged and the patients kept until cured. Seven thousand cases were thus followed in their treatment. New methods were tried and the general treatment of wounds studied.

By means of stereoscopic slides Col. de Page showed that only streptococcic infection was to be feared. The bacillus coli, the Welch, and the staphylococcic infections of wounds could be closed at once and primary union obtained.

Smears and cultures were made of the same

wound and with few exceptions, which could always be explained, they ran parallel courses.

Carrel's method with Dakin's solution was found to be the most effective one tried, when properly carried out. Among others used was the German sugar method.

Col. de Page also spoke about infection by bullet, shrapnel and clothing. He showed how they proved that wounds were often infected from the surrounding skin with germs peculiar to the respective company of men to which the patient belonged.

Many a terrible wound which seemed so grave as to require an amputation was cured by Carrel's method, healing by first intention.

Dr. King, referring to the pleasure of listening to this exceptional lecture given in another tongue with accompanying interpretation, hoped that we may have other subjects presented in different languages, and moved that a vote of thanks be extended to Col. Leon de Page and Capt. Van der Velde. This was carried with prolonged applause.

Miscellaneous.

Lang Chosen as Dentists' Head. Los Angeles also Gets Nert Year's Convention.

July 3. Dr. J. Elton Lang of Los Angeles was elected president of the Southern California Dental Association, yesterday morning, at the closing session of the twenty-second annual convention at Trinity Auditorium.

Other officers elected were: Dr. A. H. Gilbert of San Diego, first vice-president, and Dr. E. H. Lyman, Santa Barbara, second vice-president. The secretary and treasurer are appointed by the Board of Councillors. Three new members of the board were chosen yesterday. They are: Dr. W. E. Sibley, Los Angeles, the retiring president; Dr. Frank R. Damron, Whittier, and Dr. Walter A. Brown of Pomona.

Los Angeles was chosen for the next convention, which will probably be held at the College of Dentistry in July.

In addition to the scheduled program of yesterday afternoon which consisted of a clinic on the "Technique of Constructing Cast Clasps," a clinic on "Root Canal Surgery" and one on "Amalgam Restorations," Dr. Rupert Hall, professor of prosthetic dentistry at the Chicago Dental College, held an extra clinic on the "Hall Methods of Prosthetic Dentistry," and explained the Hall articulator.

Dr. Hall is visiting in Los Angeles for several weeks and it is reported he is to open a school here, teaching his own method of prosthetic dentistry.

The newly elected president of the Association, Dr. J. Elton Lang, was prominent in Los Angeles during the mobilization of the draft army. He was in charge of the preparedness dentistry work for the army, and the civilian relief work of the Red Cross. With the assistance of other dentists of this city the doctor performed a number of operations which made it possible for many men to be accepted by the army who would otherwise have been rejected because of their teeth.

Eighty-two to get Dentist Diplomas. University Class Largest in Its History. Many Medal Winners.

Commencement exercises of the college of dentistry of the University of Southern California will be held this evening in the First Methodist Church.

Major Chas. D. Lockwood, formerly oral surgeon of the college, who has recently returned from service, will be the principal speaker.

Degrees will be awarded to eighty-two candidates, the largest class in the history of the college, this record having been made in spite of the war and the "Flu."

The scholarship medal will be awarded to R. E. Barton, and the medal for excellency in prosthesis to R. L. Howard. The medal in operative technique will be given to R. C. Tennis; the Ford medal to L. A. Frasher; the LaTouche medal to R. M. Rogers.

In addition to these medals ten members have been elected to the honor fraternity Omicron Kappa Upsilon, as follows: R. E. Barton, J. F. Fleishman, F. E. Hogeboom, Guy Van Buskirk, A. Olincy, J. H. Dougherty, E. R. Fried, E. J. Burkowitz, H. S. Glick and J. R. Newcomer.

Typhoid at Pomona Traced to Local Dairy.

Pomona, July 2. Grave apprehension caused here during the last few days because of the number of cases of typhoid fever which appeared very suddenly for the first time in a number of years, brought one of the State Health officers together with Health Officer Dr. N. J. Rice before the City Council today with recommendations that immediate steps be taken for milk inspection.

There have been sixteen cases of typhoid fever reported within the last few days, and while the Health Officer is of the opinion that the worst was past, he advised extreme caution. As far as can be learned, the infection is believed to have started from a local dairy, according to the report of the State and city health officers, and the milk from that dairy is now being Pasteurized so that there can be no further spread.

Harbor Branch Regular Meeting.

Time: Friday evening, July 25th.

Place: Mignon's Eat Shop, Long Beach. Dinner at 7:15. Meeting called to order at 8:15.

Program:

"Roentgen and Radium Reactions," Albert Soiland, M.D.

"Radium; some of its Uses in Surgery and Gynecology," A. C. Sellery, M.D.

Discussion to be opened by Dr. H. H. Heylman.

Los Angeles County Civil Service Examinations.

Open Competitive Examination, room 1007 Hall of Records.

First Assistant Superintendent of Charities—Examination to be held September 11, 1919, 8:30 a. m. Salary, \$4,000 per year and full maintenance.

Requirements—Graduate physicians and surgeons of recognized school, registered to practice in California. At least two years' practice, administrative ability and professional skill.

Deputy Health Officer—Two Appointments—Examination to be held August 22, 1919, 8:30 a. m. Salary, one appointment at \$175 per month, another at \$200.

Requirements—Same as above, together with successful experience in the administration of public health laws and measures.

Resident Psychiatrist—Examination to be held Thursday, August 21, 1919, at 8:30 a. m. Salary, including three meals, beginning at \$250 per month, advance after one year to \$275.

Requirements—Graduate Grade A or B school, registered to practice in California. Not less than five years of actual continuous experience in the profession, two years of which shall have been in regular psychopathic hospital work.

PERSONALS.

Weds San Francisco Doctor.

Miss Frances L. Case of this city and Dr. W. Carl Wright of San Francisco were married at the home of the bride's mother, Mrs. Ella F. Case, on Thursday evening, July 3, 1919. The couple are passing their honeymoon in Oregon and will later be at home in San Francisco.

Pomona Physician Home After Two Years' Service.

After nearly a month and a half on the way, Dr. J. K. Swindt, now a major in the United States Army, reached his home in Pomona, and was given a hearty greeting by his large circle of friends and acquaintances, after two years in the service. He made an enviable record while in the service, having been placed in charge of several of the large hospitals. Just previous to his discharge he was in charge of a hospital at Cannes, in Southern France. The last ten days spent in the service in France were occupied in closing hospitals. In this time five large hotel buildings which had been used as hospitals were turned back to their owners.

Veteran Red Cross Chief and Italian Commissioner.

Dr. A. W. Clark, Hollywood, veteran officer of the Red Cross, who, though nearly 70, has been in charge of relief work in Europe since a year ago last April. Two of his sons were in the army.

Before going to Germany, Dr. Clark had for months overseen relief work among the destitute of three nations. Although probably the oldest American war worker in Europe, Dr. Clark was actively at work during all his stay in Europe. His headquarters were in Paris, and for the first few months of his service he was in charge of the work of alleviating the distress of 10,000 refugees in Southern France.

Last January he was appointed by the director of the department of general relief as a special commissioner to investigate the methods of caring for dependent children in Italy. There he found a shortage of food and conditions not so favorable for children as in France, owing to the lack of co-operation among social agencies and relief organizations. Glass eyes and artificial limbs for children were included in the relief work in France.

To Siberia.

Dr. Henry Owen Eversole has left for Seattle, from which port he will sail for Vladivostok, as Deputy Red Cross Commissioner for Siberia.

Dr. Eversole first went to Siberia last December, to have charge of a hospital for tuberculous soldiers at Bouchedo, 800 miles inland. Those patients were part of the Czecho-Slovak army, some 60,000, all that was left of an army of 300,000 Bohemians. The word was given to return these soldiers to France; they were to embark at Vladivostok on an English hospital ship. The men were welcomed home to the capital of the new Czecho-Slovak republic at the Wilson station, formerly the Franz Joseph.

At the request of the Czecho-Slovak government, Dr. Eversole remained two weeks at Prague to investigate conditions in their hospitals, feeding kitchens and schools, with special attention to the needs of the children.

From there he went to Paris with Dr. Mazaryk, president of the Czecho-Slovak Republic, to confer with M. Benes, Minister of Foreign Affairs, and Lady Paget. On his return to this country, Dr. Eversole interviewed prominent Czecho-Slovaks at New York and Washington, to convey to them President Mazaryk's message that their countrymen's urgent need is not money, but medical supplies and raw materials for food and clothing.

President Mazaryk wished to emphasize strongly that the United States government had already been so generous that he felt that further contributions should principally come from the 1,500,000 Czecho-Slovaks in this country.

Detained in Europe to help render medical services to the French population, following the armistice, Dr. A. M. Paulson passed through the city recently on the way to the Presidio, where he will be mustered out of service as a captain in the Medical Corps.

Dr. Paulson volunteered as a member of Base Hospital Unit No. 35 in April, 1917, and went abroad a junior lieutenant after three months at Camp Kearny. His unit was on board the ship which sunk one of the first U-boats sunk by United States gunfire. He was in active medical service at Chateau Thierry, St. Mihiel and in the Argonne, and then at the Base Hospital at Mons.

Dr. Koebig Home on Leave of Absence.

Dr. W. C. Koebig, who has served a year and a half with the Medical Corps in France with the rank of captain, arrived in Los Angeles on a thirty days' leave of absence. Dr. Koebig was in the orthopedic section of hospitals near Brest and Boulogne. At the expiration of his leave he will go to Camp Benjamin Harrison, Ind., where he will be in charge of the orthopedic section of the hospital. Mrs. Koenig will accompany him to Indiana.

Dr. W. L. Grant, who for two years served as a major in the Medical Corps overseas, has resumed his medical practice.

Officer Returns.

Lieutenant Dorn, who was formerly an attache of the Receiving Hospital, enlisted in the navy in October, 1917, and was assigned for duty on an Atlantic transport. He crossed the Atlantic many times with transports burdened with soldiers.

Lieut. Dorn, who is familiarly known at the Receiving Hospital and the Police Station as "Doc," plans to re-engage in medical practice here within a few days.

Whittier Doctor Home.

Dr. H. P. Wilson, first of the Whittier city physicians to enter war service, has returned home, having just received his discharge. He has served at a number of camps and hospitals, first at Camp Kearny, and later in some of the big rebuilding hospitals of the East. After a short vacation with his family, Dr. Wilson will resume his practice in this city.

Capt. Egbert Moody, son-in-law of L. E. Behymer, has just returned to America after a year's absence in the service of the American Expeditionary Forces. He was first stationed in Central France, but just before the signing of the armistice he was sent to the front for field hospital duty during the Argonne-Meuse drives. After the cessation of hostilities his unit was ordered to Mar-la-Tour, a few miles from Metz, to establish a hospital to care for the returning prisoners and repatriated French citizens.

At the end of February, Capt. Moody was sent to Beaune to instruct in the College of Medicine, of the A. E. F. University. Relieved from duty there, owing to previous recommendations for special work in England, he has been in London since the first of April, for post-graduate medical work offered by the Fellowship of Medicine. His wife, Mrs. Elsie Behymer Moody, and a seven months' old daughter are eagerly awaiting his arrival.

Surgeon Weds His Nurse.

Dr. Henry W. Edwards, professor of surgery at the University of Southern California, has married Miss Audrey Simpson.

Miss Simpson, who has been employed by Dr. Edwards for several years, is the daughter of Mr. and Mrs. J. T. Simpson of Seattle. The friendship dates back to six years ago, when the doctor practiced surgery in the northern city. After taking up his residence in this city, he felt that her valuable assistance was indispensable, so she entered his employ in this city.

Dr. Charles Eaton Phillips has returned from service and resumed the practice of surgery.

Dr. George B. Kalb of Monrovia is at the present time attending the Trudeau Summer school for Tuberculosis at Saranac Lake, New York.

Dr. Lawrence Lepper has been for two years at the Mayo Clinic taking post-graduate work, and in spite of his continued absence has kept up his dues in the Los Angeles Society. Such faithful allegiance to home ties certainly deserves special mention.

Dr. R. C. Nichols has been taking a post-graduate course in Chicago, but expects to be back in Los Angeles some time this month.

Dr. Ralph Bucknam is taking a special summer course in post-graduate work along the lines of general medicine at Harvard. He expects to be back about September 3rd.

Dr. Geo. A. Smale is taking a special course in diagnosis at the New York Post Graduate School.

Army Doctor Back.

Dr. J. G. Lynch, who has just returned from two years' service in the army, where he served as major, has reopened offices in Los Angeles.

Returned Doctors.

Alden, Dr. Eliot.

Bowman, Dr. W. B.; Boyce, Dr. William A.; Browning, Dr. Chas. C.; Byron, Dr. R. L.; Collins, Dr. Foster K.; Crispin, Dr. Egerton; Crum, Dr. Robt. L.

Germann, Dr. Albert C.

Lynch, Dr. J. D.

Mattison, Dr. Samuel J.; Marksmiller, Dr. Henry G.; Miller, Dr. Ulysses Grant.

Phillips, Dr. Chas. Eaton.

Rand, Dr. Carl W.; Ray, Dr. F. S.

Sellew, Dr. Paul Kibbe; Shulman, Dr. Leon; Smith, Dr. Bertrand; Smith, Dr. Rca; Stookey, D. Lyman Brumbaugh.

Tebbetts, Dr. John H.; Tholen, Dr. E. F.

Van Kaathoven, Dr. J. J. A.

Wood, Dr. Neal Naramore.

Promoted to Commanders.

Aug. 5. Lieut. C. H. Lowell, Medical Corps, U. S. Naval Reserve Force, on duty at the U. S. Navy Recruiting Station, reports that Drs. Rae Smith, Guy Cochran and Egerton Crispin of Navy Base Hospital No. 3 on the inactive list, have just been selected for promotion and appointed by the President for the rank of Commander, Medical Corps, U. S. Naval Reserve Force.

Peace Courier Welcomed.

Capt. Spiro Sargentich, diplomatic courier for the United States Peace Commission in Europe, who speaks so many languages he cannot enumerate them and who has been awarded so many medals and citations that he regards them as excess baggage, arrived at the Alexandria.

When the European war started he was Health Commissioner at Tacoma, Wash. He left immediately for Serbia, his native country, and entered the army, and was appointed chief surgeon of the

big Arangelovac hospital. Later he established a field hospital in Montenegro and then was appointed chief surgeon of a large Russian field hospital.

He passed through the typhus epidemic, administering medical aid to the soldiers and civilians and was taken ill, necessitating his return to this country.

Recovering, he enlisted in the American army and left Camp Lewis with a company of Los Angeles engineers. Upon his arrival at Camp Mills he was called to Washington and placed on the staff at the War College.

When he arrived in France, Captain Sargentich saw service in two engagements on the Meuse River and was then sent to Italy, as an American attache. He was recalled to Paris and assigned to the Peace Commission as diplomatic courier because of his linguistic ability. While serving as courier he was among the first party of Americans to enter Berlin returning to the German Capital three times. He was also the first American courier to enter Rumania. His official duties also took him to Russia, where he saw the release by the Bolsheviks of the first American prisoners. He also visited Sweden, and other European countries.

MENDOCINO COUNTY.

A regular meeting of the Society was held at Ukiah on July 19th. Present: Drs. Geo. W. Stout, Raymond A. Babcock, Homer H. Wolfe, Ernest C. Griner, Lew K. Van Allen and Oswald H. Beckman. Dr. Geo. W. Stout occupied the chair. Dr. Ernest C. Griner was elected to membership.

An interesting part of the program was contributed by Capt. Raymond A. Babcock. His descriptions of military surgery, on the actual battle-front during active operations on the battle-fields of France, was listened to by an appreciative audience.

Our Honor Men.

Asst. Surgeon R. H. Hunt, N. R. F., cannot be located by the associate editor. When last heard from he was attending to the wants of a small fleet of submarine chasers "over there," having the time of his life when the chasers would be bucking a head sea in a storm at the rate of 40 miles an hour, making the crossing of the Fort Bragg bar—in like weather—feel like sailing on a mill pond in comparison.

Capt. Homer H. Wolfe, M. C., U. S. A., having faithfully served Uncle Sam is back at his old place at Albion. Capt. Wolfe was the first one to volunteer from Mendocino County.

Lieut. Frank C. Peirsol, M. C., U. S. A., after being honorably mustered out has located at Claremont, Los Angeles County, and been transferred to that county Medical Society.

Capt. Lester C. Gregory, M. C., U. S. A., contributed creditably to the welfare of the army and helped at mustering out. After again donning civilian dress he located in San Francisco.

Capt. Raymond A. Babcock, M. C., U. S. A., attached to the Masonic Ambulance Corps, has returned from "over there" and is back on his old camping grounds at Willits. Capt. Babcock had quite lively times at the front and brought back very interesting souvenirs in the shape of producers of surgical cases as well as field emergency dressing packages for first aid carried by the enemy. He is also the recipient of a personal letter of commendation from commander in chief Pershing of the A. E. F. for unflinching attention to duty and valorous conduct under most trying of circumstances on battle-fields in France.

Lieut. Ernest C. Griner, M. C., U. S. A., after being honorably mustered out has located in Willits and is now an active member of this Society.

SAN DIEGO COUNTY

Dr. Charles M. Fox has returned from Chicago and vicinity where he has spent several weeks.

Dr. Clarence L. Rees has returned from a few weeks in the East where he visited Pittsburgh and other points of clinical interest.

Dr. W. W. Crawford, Secretary of the local society, has returned from a month spent in touring through California, Oregon and Washington.

Drs. B. J. O'Neil and Mott H. Arnold gave a luncheon on July 22nd at the University Club in honor of Dr. Theodore Ticken, Professor of Medicine in Rush Medical College. About seventy-five members of the local profession enjoyed a pleasant social hour and listened to a brief talk by Dr. Ticken on the value to the community of team work and group medicine of the medical profession. Professor Ticken conducted an interesting Medical Clinic at the County Hospital on the evening of July 24.

Dr. Martha Welpton, Dr. H. P. Newman and Dr. L. C. Kinney have returned from the East where they attended A. M. A. and other conventions. Dr. Welpton for the past seven months has been lecturing for the Government, addressing audiences of women and girls throughout California on "Social Morality" and "Sex Hygiene."

Dr. H. A. Thompson has recently added to his already efficient equipment a new laboratory of Chemistry and Biology in the Timkin Building, although he still retains his laboratory in the Agnew Hospital.

Dr. Evangeline Caven, Captain Caven, as she now is by virtue of the Serbian Relief Commission, was among the seventeen doctors, nurses, and child welfare workers who sailed for Southern Serbia. Dr. Caven has been prominent in child welfare work for the Government in Southern California and her many friends in San Diego will follow her reconstruction work with great interest.

SAN FRANCISCO COUNTY

During July but one meeting was held. This was a special meeting in honor of Dr. Antoine Depage, Surgeon to the King of Belgium, and Dr. Van der Velde, Surgeon in the Belgian Army, who addressed the society on "Certain Aspects of War Surgery and Rehabilitation."

State Board of Medical Examiners

JUNE MEETING.

A regular meeting of the Board of Medical Examiners was held in Native Sons Hall, San Francisco, California, June 21-25th inclusive.

Cyrus J. Gaddis, D. O., Alameda, vice Ernest Sisson, D. O., Alameda (resigned) and Alfred J. Scott, M. D., Los Angeles, vice H. V. Brown, M. D., Los Angeles (resigned), were seated as members of the Board.

Dr. A. J. Scott appointed on Credentials Committee.

Dr. C. J. Gaddis appointed on College Investigation Committee.

Approximately 94 applicants appeared for the written examinations which were conducted for physicians and surgeons, drugless, chiropractors and midwives and of the number noted 4 wrote the examination in the Japanese language.

125 applications for reciprocity were considered of which 45 were examined orally as provided in Section 13.

Seven applied for reciprocity certificate "to practice osteopathy" and one for a drugless reciprocity certificate.

Seven applicants, holders of certificates to practice osteopathy in California filed for the oral-practical-clinical examination under Section 12½ and one appeared for examination.

The certificates to practice medicine and surgery heretofore issued to Gideon M. Freeman, Jr., and Franklin T. Duncan, were revoked.

The certificate to practice Naturopathy under legislative enactment of 1909 heretofore issued to Robt. D. Shoults, was revoked.

Attorney Ward filed his report on the final termination of the deliberations of the 1919 legislation on medical bills.

The matter of the revocation of the license of Moses Jacobson was re-opened, the former judgment of the Board rescinded and the certificate restored.

The applications of H. Earl Cogger and Geo. F. Gernhart for a reciprocity certificate, were denied.

Report of Legal Department (Northern District)

Cases Initiated Between January 1, 1919, and June 15, 1919, Inclusive.

Name		Date Initiated	Disposition
Baxter, W. A.	San Francisco	3/4/19	Dismissed—On Account of absence of witness.
Callahan,	San Francisco	5/19/19	Pending—For Trial.
Chamley, S. R.	San Francisco	3/4/19	Pending—For Hearing.
Choy, L. S.	Fresno	6/9/19	Pending—For Hearing.
Choy, L. S.	Fresno	6/9/19	Pending—For Hearing.
Edwards, Homer C.	San Francisco	5/2/19	Dismissed—Insufficient evidence.
Flewitt, Horace R.	San Francisco	3/4/19	Dismissed—By Court without hearing.
Fritz, Rose S.	San Francisco	3/4/19	Pending—For Trial.
Fritz, Rose S.	San Francisco	5/22/19	Dismissed—New Complaint filed.
Goscinsky, Albert	Kings City	2/6/19	Pending—For Hearing.
Him, Wong	Oakland	3/14/19	Guilty—\$300 Fine. Appeal taken.
Him, Wong	Oakland	3/26/19	Pending—For Trial.
King, Lai	Oakland	3/3/19	Pending—For Trial; Jury.
Macheete,	San Francisco		Pending—For Trial; Jury.
Sing, Lai	Oakland	3/13/19	Pending—For Trial; Jury.
Shew, Po Kwong	Oakland	3/17/19	Pending—For Trial; Jury.
(Shew Ping)			
Wolters, Carl	Fresno	5/7/19	Pending for Hearing.
Wing, Foo	Oakland	3/15/19	Pending—For Trial; Jury.
Wan, Fong	Oakland	3/13/19	Not Guilty.
Wan, Fong	Oakland	3/19/19	Pending—For Trial; Jury.
Yok, Chin	San Francisco	3/4/19	Pending—For Hearing.

Charges of Unprofessional Conduct Initiated Since January 1, 1919.

Name	Offense Charged	Disposition
Baker, Clarence C.	Section 14, Subdivision 1.	Pending.
Hadley, Fred'k. H.	Section 14, Subdivision 10.	Pending.
Ward, Irving L.	Section 14, Subdivision 6.	Pending.

Report of Cases other than Violation of Medical Practice Act.

Name	Date	Charge	Disposition
Lowe, Bui	Oakland 5/26/19	Bribery	Pending—For Hearing.

Cases for Violation of State Medical Practice Act, pending March 15, 1919. Southern Department.

Name of Case	Disposition
Wing, Tom How	Pending—Off calendar.
Gilkerson, J. K.	Pending—Off calendar.
Dominguez, Armando	Pending—Defendant not apprehended.
Morales, Senora	Pending—Defendant not apprehended.
Bruder, E. A.	Bail forfeited, \$250. Defendant not apprehended.
	Pending.
Lowe, W. S.	Pending—Defendant not apprehended.
Salisbury, H. O.	Bail forfeited, \$100. Defendant not apprehended.
	Pending.
Ching, H.	Pending—Off calendar. Convicted of another similar offense.
Hubley, E. Bernard	Acquitted.
Haas, J. O. Francis	Pending—Held to answer to Superior Court for Trial.

Cases initiated between March 15, 1919, and June 18, 1919, inclusive.

Name of Case	Date initiated	Disposition
Haas, J. O. Francis	San Diego 3/8/19	Dismissed—Insufficient evidence.
Ehrenstrom, Philip	Los Angeles 4/15/19	Violation of probation. Bail forfeited; \$200. Defendant not apprehended. Pending.
Zendejas, Panfilio	Los Angeles 4/15/19	Pending—Defendant not apprehended.
Samaniego, Louis	Los Angeles 4/15/19	Guilty—\$300 or 180 days. Fine paid.
Haro, J.	Los Angeles 4/15/19	Guilty. \$300 or 180 days. Fine paid.
Coats, Emma M.	San Diego 4/28/19	Pending—Held to answer to Superior Court for Trial.
Hee, T. K.	San Diego 4/28/19	Guilty. \$150. Fine paid.
Jim, Tom	San Diego 4/28/19	Guilty. \$150. Fine paid.
Lundvall, J. A.	San Diego 4/28/19	Guilty. \$150. Fine paid.
Winchell, Morton M.	Venice 5/12/19	Pending.
Mohr, A. E.	Pasadena 5/15/19	Pending—Held to answer to Superior Court for Trial.
Winchell, Morton M.	Los Angeles 5/26/19	Guilty. \$250 and 180 days. Fine paid. Jail sentence suspended two years.
Chung, H.	Los Angeles 6/2/19	Violation of probation. Dismissed. Insufficient evidence and conviction in another case.
Tuey, D. K.	Los Angeles 6/4/19	Guilty. \$500 and 100 days. Fine paid. Jail sentence suspended two years.
Quack, Wah	Los Angeles 6/5/19	Dismissed—Convicted in another case.
Fong, D. R.	San Pedro 6/5/19	Guilty. \$250 or 180 days. Fine paid.
Quack, Wah	Los Angeles 6/5/19	Guilty. \$250 or 180 days. Fine paid.
Chan, H. T.	Los Angeles 6/6/19	Guilty. \$100 and 100 days. Fine paid. Jail sentence suspended two years.
Gay, Carosso	Los Angeles 6/6/19	Pending—Defendant not apprehended.
Murase, M.	Los Angeles 6/7/19	Guilty. \$250 and 100 days. Fine paid. Jail sentence suspended two years.
Leong, M. C.	Bakersfield 6/10/19	Pending.
Kwan, H. Y.	Bakersfield 6/10/19	Pending.
Yan, Mon F.	Bakersfield 6/10/19	Pending.
Kwan, H. Y.	Bakersfield 6/10/19	Pending.
Laird, Mrs. W. W.	McFarland 6/11/19	Pending.
Sanchez, G. G.	Bakersfield 6/11/19	Pending—Held to answer to Superior Court for Trial.
Woo, L. Su	Visalia 6/12/19	Pending.
Woo, L. Su	Visalia 6/12/19	Pending.
Chung, H.	Los Angeles 6/13/19	Guilty. \$500 and 180 days. Fine paid. Jail sentence suspended two years.
Leong, M. C.	Bakersfield 6/13/19	Pending.
Yan, Mon F.	Bakersfield 6/13/19	Pending.
Hiett, J. A. C.	Bakersfield 6/16/19	Pending—Held to answer to Superior Court for Trial.
Hiett, J. A. C.	Bakersfield 6/16/19	Pending—Held to answer to Superior Court for Trial.
Kwan, H. Y.	Bakersfield 6/16/19	Pending.
Leong, M. C.	Bakersfield 6/16/19	Pending.
Hin, Pond	Bakersfield 6/16/19	Pending.
Sanchez, G. G.	Bakersfield 6/16/19	Pending—Held to answer to Superior Court for Trial.
Garza, Joaquina	Los Angeles 6/17/19	Violation of probation. Pending.

Summary.

Guilty	12
Dismissed	3
Pending	32
Acquittals	1
Total	48

Fines.

Fines imposed and paid—Jan. 1, 1919, to date.	\$3850.00
Bail forfeited—Jan. 1, 1919, to date.	200.00
Fines paid after judgment affirmed on appeal.	200.00
Total fines paid into court, Jan. 1, 1919, to date	\$4250.00

**Superior Court
Pending March 15, 1919.**

Name of Case	Location	Charge	Disposition
Atherton, Lila	Los Angeles	Criminal abortion.	Pending.
Seiffert, John	San Diego	Criminal abortion.	Pending.

Initiated between March 15, 1919, and June 18, 1919.

Name of Case	Location	Charge	Disposition
Winchell, M. M.	Los Angeles	Manslaughter.	Pending—Held to answer to Superior Court for Trial.

Federal Court**Using U. S. Mail in furtherance of a scheme to defraud. Pending March 15, 1919.**

Name of Case	Location	Disposition
Giles, Henry L.	Los Angeles	Pending—Not apprehended.
Sims, Ambrose	Los Angeles	Pending—Not apprehended.
Haruki, R.	San Francisco	Not guilty.
Hayashi, Tetsu	San Francisco	Not guilty.
Nacayama, Thos. G.	San Francisco	Not guilty.
Ochiai, Masao	San Francisco	Not guilty.
Silverman, Herman	Los Angeles	Pending.
Watanabe, Etsizo	San Francisco	Not guilty.
Young, Clyde H.	Los Angeles	Pending.

**Using U. S. Mail in Violation of Section 211 of the Federal Code.—Mailing obscene letters.
Pending March 15, 1919.**

Name of Case	Location	Disposition
Bin, Tom Shoe	Los Angeles	Pending.
Stone, Augusta	Los Angeles	Pending.
Walters, H. S.	San Luis Obispo	Pending.
Frank, M. A.	Los Angeles	Pending.
Somers, George	Los Angeles	Pending.
Purcell, George F.	Los Angeles	Pending.

Charges of Unprofessional Conduct, pending March 15, 1919.

Name of Case	Offense Charged	Disposition
Austin, Silas A. (Los Angeles)	Subdivision 6, Section 14.	Dismissed.
Burnett, Jay Otis (Los Angeles)	Subdivision 1, Section 14.	Guilty. License revoked.
Davis, Magnet J. (Los Angeles)	Subdivision 1, Section 14.	Dismissed.
Haigh, Frederic (Los Angeles)	Subdivision 1, Section 14.	Dismissed.
Holsman, Chas. K. (Los Angeles)	Subdivision 5, Section 14.	Respondent left jurisdiction. Continued to June 1919 meeting.
Richardson, Geo. Henry (Los Angeles)	Subdivision 1, Section 14.	Guilty. License revoked.
Sander, Alfred T. A. (San Diego)	Subdivision 10, Section 14.	Guilty. License revoked.
Seiffert, John H. (San Diego)	Subdivision 1, Section 14.	Respondent left jurisdiction. Continued to June 1919 meeting.

Initiated between March 1, 1919, and June 18, 1919.

Name of Case	Offense Charged	Disposition
Freeman, Gideon M. (Los Angeles)	Subdivision 5, Section 14.	Pending.

**Writ's
Superior Court**

Name of Case	Location	Charge	Disposition
Leung, T.	Los Angeles	Writ of Habeas Corpus	Writ denied. Prisoner remanded.
Jacobsen, Moses vs. Board	Los Angeles	Writ of Review	Pending.
Glass, Thos. F. vs. Board	Los Angeles	Writ of Review	Pending.

**Appellate
Superior Court**

Name of Case	Location	Disposition
Suckow, John K. vs. Board	Los Angeles	Pending.

Superior Court

Name of Case	Location	Disposition
Betdorf, J. W.	Los Angeles	Pending.
Bin, Tom Shee	Los Angeles	Pending.
Foote, A. M.	Los Angeles	Pending.
Hiroto, H.	Los Angeles	Pending.
Leung, T.	Los Angeles	Pending.

Notice

A. P. H. A. TO MEET IN NEW ORLEANS.

The next annual meeting of the American Public Health Association is to be held at New Orleans, Louisiana, October 27-30, inclusive. The central themes of discussion will be Southern health problems, including malaria, typhoid fever, hookworm, soil pollution and the privy, etc.

The programs of the sections will, as usual, deal with public health administration, vital statistics, sanitary engineering, laboratory methods, industrial hygiene, sociology and food and drugs.

Public Health Service in San Diego

By O. G. Wicherski, M. D., County Physician of San Diego County.

The efforts of the community toward the social welfare of its citizens should begin with the care of the health. For a large part of the people these efforts must center around the free hospital and the public clinic.

San Diego is fortunate in possessing a Board of Supervisors endowed with a lively interest in the public's health and capable of giving this interest intelligent expression. Through their constant oversight, guided and counseled by advanced medical thought, the public medical service given San Diego's poor is of a high order. This service is embodied in the work of the County Hospital, the



GENERAL VIEW OF NURSES' HOME

Nurses' Home and Training School, the Vaclain Home for the tuberculous and the Out of Door Clinic and Dispensary. The General Hospital, the Vaclain Home and the Nurses' Home comprise an interesting group of buildings ideally situated on the high bluff overlooking the valley of the San Diego river.

The General Hospital, a three-story brick structure, with a capacity of 250 beds, is served by a house staff of five internes and a visiting and consulting staff of forty specialists selected from the ranks of the County Medical Society. The first floor is given up to the administration, clerical and culinary departments, with receiving wards—one for men and one for women and children. From these wards, after thorough examination, the patients are classified by the receiving physician and referred to their proper wards. The second floor is given up entirely to medical cases, and the third floor to surgery, obstetrics and pediatrics. The floors are connected by elevator service and spacious porches on each floor permit of out-of-door treatment for convalescents.

The nursing is largely done by the undergraduate nurses of the training school, carefully supervised, however, by an able corps of graduate nurses designated as follows: One superintendent of nurses, one instructress in nursing, one night supervisor, three day supervisors, one special surgical nurse assisting in the operating room. Adjacent to, but detached from the General Hospital is a heating plant in which is also installed the hospital laundry. A new morgue building has recently been built to supersede the old morgue formerly housed in the basement of the hospital. This new building is equipped with a modern Mott autopsy table and is thoroughly modern in every way. The removal



COURT OF NURSES' HOME

of all tuberculous cases to the new Tuberculosis Hospital has released considerable space on the third floor of the General Hospital, which space has been remodeled to accommodate the obstetric and pediatric work, thus placing these departments on the same high plane occupied by surgery which, with its modern operating rooms and well equipped bio-chemical and Roentgenologic laboratories, has rivaled in work that done in any local hospital.

The Vaclain Home for the Tuberculous, opened less than a year ago, is already taxed to its capacity. With the screening of its porches, which is now being done, this capacity will be increased to about sixty-five patients, as well as the comfort of the inmates materially enhanced. The staff of the Vaclain Home consists of two visiting specialists, one interne and three graduate nurses. It is a State subsidized institution and its dietary is supervised by the Bureau of Tuberculosis of the State Board of Health.

The Nurses' Home with its commodious auditorium and pleasant living quarters houses the training school presided over by a full-time instructress, giving practical instruction and demonstrations throughout the year. Lectures are also given by members of the visiting staff and the house staff of the hospital. The Nurses' Training School is accredited by the State Board of Health.

In addition to the hospital group herewith described, free medical service is given through the San Diego County Dispensary, located down town on the Court House square. It has sufficiently



GENERAL VIEW OF VACLAIN HOME FOR THE TUBERCULOSIS POOR

commodious quarters to accommodate the various specialties and is in charge of a registered nurse, assisted by two nurses from the training school and a medical interne. Departments of service represented here comprise General Medicine, Minor Surgery, Eye, Ear, Nose and Throat, Obstetrics, (pre-natal care), Gynecology, Pediatrics, Orthopedics, and Dermatology. Time and space is also set aside for the treatment of venereal diseases under the supervision of the State Board of Health. Also, in co-operation with the City Health Department, the dispensary maintains a milk station where whole and modified milks are dispensed under the direction of the attendant pediatricist. One of the nurses stationed at the Free Dispensary accompanies a Public Health nurse from the City Health Department in visits to the children for whom milk is obtained at the dispensary.

With such liberal equipment and an esprit de corps difficult to surpass, it is little wonder that

San Diego is becoming noted for its group medicine.

The County Society, from time to time, holds clinical and pathologic sessions in the auditorium at the County Hospital, while meetings of the staff members, which, by the way, are never "close-corporation affairs," tend to keep alive, by interchange of views, the scientific spirit so essential to medical progress.

Watts Building.

Correspondence

ELECT MEMBERS OF THE INDEMNITY DEFENSE FUND.

Editor the Journal:

As one of the first members of the Indemnity Defense Fund, and one of its strongest advocates, I desire to register a solemn protest against permitting physicians in active practice to join promiscuously. In the August Journal in your article entitled "The Indemnity Defense Fund," on page 263, you urge all physicians in active practice to join the Fund and mail their checks. I am in hearty agreement with your article that the Fund is meritorious and that it confers benefits far beyond the small amounts contributed by the individual members. I consider it the best investment I have, and for that very reason I want to protect it.

There are some physicians in active practice that I don't think ought to be permitted to join the Fund. Why? On the same basis and for the same reason that Insurance Companies refuse certain risks. The character of their practice, the methods they use will sooner or later get them into serious trouble. One of these days, one of these "careless birds," who are always taking chances, will be served with a complaint asking a judgment from \$25,000 to \$100,000. He won't be able to offer a host of a defense. He'll fall back on the Indemnity Defense and make us pass the hat. I want to avoid this and suggest, therefore, that all members received into the Indemnity Defense Fund be first proposed by two active members of the Fund and have their names then sent to all the members of the Fund for good or evil report. In this way you will quickly secure all the physicians who will make desirable members and keep those out whose reprehensible practices are too great a hazard for the Fund to carry. Being a member of the Fund under those safeguards will carry with it not only protection but prestige.

AN ORIGINAL LOS ANGELES COUNTY MEMBER.

August 4, 1919.

FOR MEN RETURNING FROM SERVICE.

To the Editor:

We have been requested to write a communication to the Journal in order to clarify a confusion which has arisen on account of an article published in the American Medical Journal some months ago, wherein the impression was created that medical officers of the army, navy, public health or marine hospital service were entitled to conduct private practice in the State of California without the formality of obtaining a certificate issued under the provisions of the Medical Practice Act of the State of California.

Section 22 of the Medical Practice Act of California provides in part as follows:

"Nothing in this act shall be construed to prohibit service in the case of emergency, or the domestic administration of family remedies; nor shall this act apply to any commissioned medical officer in the United States army, navy or marine hospital, or public health service, in the discharge of his official duties; nor to any licensed dentist when engaged exclusively in the practice of dentistry.

Nor shall this act apply to any practitioner from another state or territory, when in actual consultation with a licensed practitioner of this state, if such practitioner is, at the time of such consultation, a licensed practitioner in the state or territory in which he resides; provided, that such practitioner shall not open an office or appoint a place to meet patients or receive calls within the limits of this state."

It will be noted that an army officer, etc., must be "in the discharge of his official duties." Any practice of any kind or character outside of the practice in the discharge of his official duties would require a certificate from the State Board of Medical Examiners unless it should be a case wherein the army officer was in consultation with a licensed practitioner in this state as noted in the exemption clause quoted above.

Yours very truly,

CHARLES B. PINKHAM,

Secretary-Treasurer.

San Francisco, August 15, 1919.

HEALTH INSURANCE.

To the Editor:

August 2, 1919.

A number of us doctors who battled against health insurance were recently discussing the lack of progress which that movement is making. We were told several years ago by imported and deported propagandists that it was surely coming and that California had just as well be first as last. Riverside county led the procession against it in last year's popular election. Eighty-two per cent. of our voters thought just as we did. If we had it to do over again I am sure we would increase the percentage to ninety-two. The reason for this is set forth so conclusively in an editorial, which I am enclosing from the Saturday Evening Post of July 19th, that I am sure it will be of interest to all if you will publish it. I believe I can say with fullest assurance that it briefly expresses the thoughtful opinion of the medical profession.

RIVERSIDE.

(Editor's note—The following editorial from the Saturday Evening Post is published in accordance with the above request:)

"Compulsory state-managed health insurance on the German pattern does not go well here. Americans—wage-earners as much as others—dislike 'compulsory'; they dislike being dry-nursed under the paternal hand of the state. The cost would be high. Many members of the medical profession object to it. Many workmen believe it would set up an oppressive discrimination against persons who though not in perfect health are able to do a very good day's work. Compulsory insurance was decisively defeated in the California prebiscite. It failed in New York.

"A chief argument against it has been that at much less cost and very much less compulsion upon the individual public health can be better conserved by a broad plan of hygienic and preventive measures under competent and liberally supported boards of health. It is pointed out that after thirty-five years of compulsory health insurance the German death rate is higher than ours.

"Rejecting compulsory health insurance, then, we should turn energetically to the alternative of better health laws, stronger health boards. There ought to be a vigorous educational campaign on sickness prevention. Rejecting compulsory insurance is merely negative. We ought to attack the positive side.

"Of course we do attack it. Every state and probably every village has its health board or health officer. Yet there is no state and no village in which these agencies might not be profitably strengthened. Agitation for compulsory health insurance has had a good result in directing livelier attention to sickness prevention. Keep that up."

MEXICAN HAIRLESS.

August 16, 1919.

To the Editor:

I enclose "sure cure" advertisement for rheumatism. If printed in the Journal, some doctors might profit thereby.

No extraction of teeth needed.

Fraternally,

B. E. MERRILL.

For sale—Cheap, toy Mexican hairless, sure cure for rheumatism, if slept with, open from 10 to 2, Sunday. Pennant Hat Works, 233 E. 5th St.—L. A. Sunday Times.

JUSTICE TO DR. RICHARDSON.

To the Editor:

We hasten to reply to an article appearing on page 298, Vol. 17, No. 8 of the California State Journal of Medicine, under the caption, "Injustice to a State Society Member," in the hope that the confusion incident to a similarity of names may be righted.

The alphabetical index of the 1919 Directory of Physicians and Surgeons, Osteopaths, Drugless Practitioners, Chiropodists, Midwives, holding certificates issued under the Medical Practice Acts of the State of California, lists:

- (1) George Henry Richardson.....San Francisco
- (2) George Henry Richardson.....Los Angeles

A star in the alphabetical index is placed before the name of George Henry Richardson, San Francisco, which denotes government service, but such a designation does not appear before the name of George H. Richardson of Los Angeles.

By reference to the San Francisco county classification, as printed therein, you will note that:

(1) George Henry Richardson—San Francisco, a graduate of the University of Pennsylvania, May 1, 1891, holds license No. 6091 issued May 7, 1891, which entitles the holder thereof to practice medicine and surgery in the State of California. The records of the Board of Medical Examiners manifest the patriotic activities of Dr. Richardson during the period of the war and his estimable standing as a reputable practitioner.

By reference to the Los Angeles county classification it will be noted that:

(2) George Henry Richardson—108 W. 2d St., Los Angeles, a graduate of the Chicago Homeopathic Medical College, Ill., March 24, 1891, holds certificate 394 issued July 2, 1891, by the Board of Examiners of California State Homeopathic Medical Society, which during the time the certificate was in good standing, entitled the holder thereof to practice medicine and surgery in the State of California.

By reference to page 1434, of the official minutes of the Board of Medical Examiners, under date of March 19, 1919, it appears that George Henry Richardson, charged with a violation of subdivision 1, Section 14 of the Medical Practice Act, was adjudged guilty, after a hearing wherein all testimony was presented to the board then in regular session, and the license heretofore issued said George Henry Richardson entitling him to practicing medicine and surgery in the State of California, was revoked.

Trusting that the above explanation may clarify the confusion which has arisen due to the similarity of names of the licentiates as noted, we beg to remain,

Yours very truly,

CHARLES B. PINKHAM,

Secretary-Treasurer.

San Francisco, Cal., August 15, 1919.

Resigned

Peters, Luin H., Los Angeles.
Nichols, Robt. C., Los Angeles.

New Members

Campbell, James, Pasadena.
Felsenthal, Louis, Los Angeles.
Sellen, Paul K., Los Angeles.
McCoy, Earl T., Los Angeles.
Von Wedelstaedt, B., Long Beach.
Saylin, Joseph, Venice.
Nichols, R. C., Ontario.
Walshhaftig, Meyer J., Fresno.
Skoonburg, A. E., Fresno.
Geraldson, Lena A., Napa.
Hendricks, H. P., San Diego.
Shields, N. J., San Luis Obispo.
Stover, W. M., San Luis Obispo.

Transferred

Heaney, Robert H., from San Francisco Co. to Siskiyou Co.
Rothganger, Geo., San Francisco County to Alameda County.
Bush, H. Chesley, Placer County to Alameda County.
Legge, Robt. T., Shasta County to Alameda County.
Mugler, F. R., Alameda County to San Francisco County.
Greenwood, Edna, Santa Clara County to San Francisco County.
Piper, H. E., Santa Cruz County to San Francisco County.
Schaupp, Karl, Santa Clara County to San Francisco County.
Edwards, S. R., San Joaquin County to San Francisco County.
Peirsol, Frank C., Mendocino County to Los Angeles County.
Malpas, Ida Lathrop, Mendocino County to San Francisco County.

Deaths

Kruell, F. J., a graduate of Rush Medical College, 1881. Licensed in California, 1888. Died in Hollywood, Calif., July 29, 1919. Was a member of the Medical Society, State of California.

Larson, Julia Pauline, a graduate of the University of California, 1900. Licensed, 1901. Died in Stevenson, Merced County, California, July 17, 1919.

Manson, Josef I., a graduate of College of Medicine, Syracuse University, New York, 1897. Licensed in California 1897; died in Brockway, Lake Tahoe, Calif., July 28, 1919.

Meagher, Joseph F., a graduate of University of California, 1902. Licensed 1906; died in San Francisco, August 15, 1919.

Miller, Chas. Fred'k, a graduate of Med. Dept. Univ. of Calif., 1874. Licensed in Calif., 1876; died in Los Angeles, July 22, 1919. Was a member of the Medical Society State of California.

Somers, George C., a graduate of Rush Medical College, Ill., 1880. Licensed in Calif., 1884; died in Los Angeles, July 6, 1919.

Preston, Walton H., A graduate of Rush Medical College, 1881. Licensed in California, 1891. Died in San Francisco, July 1, 1919.

Sawyer, Wm. B., A graduate of the Medical Dept. Univ. of Harvard, Massachusetts, 1879. Licensed in California, 1882. Died July 9, 1919, in Riverside, California.

Severson, Wm. R., A graduate of College of Physicians and Surgeons, Illinois, 1901. Licensed in California, 1905. Died in Los Angeles, June 14, 1919. Age 43. Was Captain in Medical Corps at Camp Kearny.

Smiley, Virginia W., A graduate of Woman's Medical College, Pennsylvania, 1882. Licensed in California, 1888. Died in San Francisco, July 3, 1919.

California State Journal of Medicine

OWNED AND PUBLISHED MONTHLY BY THE MEDICAL SOCIETY OF THE STATE OF CALIFORNIA
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Yolo.....Dr. Frances L. Newton, Woodland
Yuba-Sutter.....

Contributors, subscribers and readers will find important information on the sixteenth advertising page following the reading matter.

VOL. XVII

OCTOBER, 1919.

No. 10.

PRESIDENT OF CALIFORNIA OSTEOPATHIC ASSOCIATION MAKES SERIOUS CHARGES—PROOFS DEMANDED.

To the Editor:

My attention has just been called to an unsigned "Special Article," "The Roll Call and Results," that appeared in your July issue.

The writer takes issue with my statement that A. B. 933 merely permitted "the Osteopath to continue the same practice which he has enjoyed for the past twelve years." That was all this bill was intended to do. Osteopaths have enjoyed unlimited rights in practice in California for twelve years with full knowledge of the State Board of Medical Examiners, the statement of the Secretary to the contrary notwithstanding.

Dr. Norman F. Sprague, an osteopath, testified before this Board, under oath, to having performed a major surgical operation. The Board declined to prosecute. The Medical Board had knowledge of many other osteopaths practicing major surgery.

The right of osteopaths to practice as physicians and surgeons was raised by the Optometry Board in the case of The People vs. Lineker. Superior Judge Ogden of Oakland, before whom the case was tried, ruled in favor of the osteopaths.

I reiterate the statement that the powerful lobby maintained by the American Medical Association in Washington prevented the osteopathic physicians from securing proper recognition in the army and navy. This statement does not arise from a "superheated imagination." It is a fact that is easily proven.

I am reserving for other occasions comment upon how osteopaths who passed the examination for commission in the army were denied these commissions because they did not bear the label M. D. and how some of these were later commissioned. This will make interesting reading but I think it will more deeply concern the public than the medical profession.

One might infer from the statements of your anonymous correspondent that I was the only one in Sacramento interested in medical legislation. Attorney Louis H. Ward was constantly in attendance, looking after the interests of the State Medical Society. * * * * *

Your correspondent classifies the legislators into three groups. He states, "We are reserving for other occasions many comments on each of the groups and the individuals that compose them."

I would suggest that he reclassify them, placing in one group all those who voted for the osteopathic bills, and then analyze their records. The legislators who voted for the osteopathic bills are the ones who voted right on all moral issues. This group would comprise, with very few exceptions, all the big brainy men of both houses. It must be apparent to any thinking person that the osteopaths could not have gained the support of these men had their bills not had merit.

It is a noteworthy fact that Mr. Ward could not secure a strong man in either house to lead the fight against the osteopathic bills.

In conclusion I wish to say that your correspondent has grossly misrepresented the facts throughout his entire article.

Very truly yours,

(Signed) W. W. VANDERBURGH.

1275 Flood Building, San Francisco.

The above communication of W. W. Vanderburgh, D. O., President of the California Osteopathic Association, is crowded with so many erroneous statements that we cannot spare space in this issue to dissect all of them. Many of his errors do not require further comment as they have been frequently and fully exposed already.

The testimony of President Vanderburgh that some osteopaths have "enjoyed" unlimited rights we do not doubt. The Medical Practice Act set definite limits and established definite rights. To "enjoy" going beyond the limits established by law is no new or creditable performance. Many "enjoy" violating the best divine and human laws, but their enjoyment does not justify the violation and cannot be logically urged as establishing their right to further and future enjoyment.

In the issue of the San Francisco Examiner published on May 7, 1919, the State Board of

Medical Examiners in replying to similar statements issued by W. W. Vanderburgh, D. O., stated: "The majority of the osteopaths do not desire to practice in violation of the law as interpreted by the Attorney General. If the author of these statements (W. W. Vanderburgh, D. O.) will present satisfactory evidence to the Board of specific violations of the Medical Practice Act, the legal department will guarantee to prosecute."

More than four months have elapsed since the Board has made this request and guaranteed to prosecute, but President Vanderburgh has failed to furnish the evidence. We now remind him that the Board is still ready to prosecute all violators of the Medical Practice Act, and in the interests of public health and safety we believe President Vanderburgh owes it to the commonwealth to present such evidence as he claims to have.

Another astounding statement that President Vanderburgh reiterates is that "the powerful lobby maintained by the American Medical Association in Washington prevented the osteopathic physicians from securing proper recognition in the army and navy." He says this is "a fact that is easily proven."

We hereby call upon W. W. Vanderburgh, D. O., to prove that the Congress of our country is subject to the influence of the American Medical Association and did a grave injustice to the osteopaths. Such an absurd accusation coming from an obscure source might be treated with proper contempt, but coming from the spokesman and President of the Osteopaths of California it must be given serious consideration. It is for this reason that we demand the proofs which President Vanderburgh claims he can easily provide.

President Vanderburgh in his indulgent interpretation of the Medical Practice Act finds himself not only in opposition to the Attorney General but in hostile attitude to the Supreme Court.

"The right of osteopaths to practice as physicians and surgeons," President Vanderburgh has regularly contended was established by law and "enjoyed" for twelve years. In order to surround the "enjoyment" with greater safety than it apparently had during these dozen joyous years Assembly Bill No. 933 was introduced at the last session of the Legislature. According to President Vanderburgh, it was a superfluous bill, as the osteopaths were already for twelve fat years enjoying the rights which it proposed to confer. According to the action of the Governor, however, who refused to sign it, it was a menace to public health as it conferred the right to practice as physicians and surgeons upon the unqualified.

The right of osteopaths to practice as physicians and surgeons is not a matter for President Vanderburgh's or our interpretation.

The Supreme Court sitting in bank in a decision written by Justice Wilbur and concurred in by Justices Lennon, Shaw, Lawlor, Melvin and Olney said: "The law prohibits such conduct, and is constitutional."

In the decision referred to, that of C. G. Rust, Crim. No. 2242, a decision we commend to the study and observance of President Vanderburgh and all those that look to him for guidance, we read:

"We think it fairly apparent, however, that the Legislature has, in effect, always used the terms 'physician' or 'surgeon' and 'physician and surgeon' as applied to those practicing medicine and surgery within the meaning of the various medical acts, as contradistinguished from the practitioners of osteopathy. For instance, the first law regulating the practice of osteopathy provided, 'The system, method and science of treating disease is hereby declared not to be the practice of medicine or surgery within the meaning of the act of 1876, regulating the practice of medicine. The corresponding medical act passed by the same Legislature a few days previous (Stats. 1901, p. 56) declared that those were deemed to be practicing medicine or surgery who held themselves out "as being engaged as doctors, physicians or surgeons," etc. (Stats. 1901, p. 63, Sec. 16, sub. 1). We thus have the legislative declaration that an osteopath is not practicing medicine or surgery, and that "physicians" and "surgeons" are practicing medicine. . . . The law under which the petitioner received his license to practice osteopathy recognized that that practice was separate and distinct from the practice of medicine and surgery, and the requirements for a license to practice osteopathy and for a physician's and surgeon's license have always been different."

We hesitate to believe that the President of the California Osteopathic Association can condone or commend the unlawful conduct of the few holders of osteopathic certificates who surreptitiously practice as physicians and surgeons not only in violation of law but of the rights and health of the people.

PHYSICIANS—REGISTER YOUR BIRTHS PROMPTLY.

CONSTRUCTIVE SUGGESTIONS WANTED ON MEDICAL PRACTICE ACT.

In a letter addressed to the profession of the State the Section For the Advancement of Medical Education and Science of the League for the Conservation of Public Health asks each individual doctor to comment specifically on the deficiencies of the present Medical Practice Act and offer constructive suggestions on administrative, educational and enforcement features that will better safeguard the public welfare.

This important work of the League is under the direction of William E. Musgrave, M. D., of the University of California; William Ophuls, M. D., Dean of Leland Stanford Junior University School of Medicine; George Whipple, M. D., of the George Williams Hooper Foundation of Medical Research, Drs. Dudley Fulton, Stanley P. Black and other leading members of the profession.

All thoughtful men who have had any responsibility for public or private health realize that a strong Medical Practice Act is of fundamental importance not only for the steady prog-

ress of Medical Science but for the protection of public health. It has been invariably observed that wherever lax Medical Practice laws are loosely enforced the general average of Medical Standards and work is proportionately low. It could not be otherwise.

Anyone who will contribute ideas that will strengthen the present Medical Practice Act and raise its standards from their present low level will be rendering a service to the health of this commonwealth.

It is the professional and civic duty of every member of the medical profession to take a personal interest in this matter. Past inactivity and the general indifference of the medical profession of this State are all reflected in the indulgent and incongruous provisions that are shot through the present act. In suggesting and advocating the raising of standards to keep abreast of the progress of medical science no selfish thought inspires our action. The Medical Practice Act is intended for the benefit of all the people, and whatever will benefit the public most is best for the profession. Here in California we should be satisfied with nothing less than the best. Read the present Medical Practice Act carefully and send to the League that has engaged in this worthy enterprise your best constructive thought.

PHYSICIANS—REPORT COMMUNICABLE DISEASES
WITHOUT DELAY.

WHAT IS MEDICINE?

From the Latin "medeor," to cure, and hence as Webster states, medicine means the art of preventing, curing or alleviating the diseases of the human body. To this we would add only one extension, to bring the term thoroughly up to date and make it completely descriptive. Medicine means not only the prevention, cure and alleviation of diseases of the body but also of the mind. This was of necessity included in the first definition but is worth noting specifically in addition. Thus it is seen that if our definition be true, the art of medicine includes all that pertains to prevention of disease and maintenance of health, all that pertains to the cure of disease and all that tends to make incurable or unavoidable disease more endurable. In passing, it may again be emphatically stated that such a definition makes of primary importance the study of disease causes and results. For without this knowledge we are unable effectively to limit, control or cure disease. Further, to diagnose disease requires a certain fundamental knowledge of the human body and mind in their functional as well as their morphological relationships. Such knowledge, in turn, presupposes a certain temperament of the student and scientist who can scan facts and evidence with impartial eye, and also presupposes a certain groundwork of more elementary study which is necessary to fit the seeker for his higher studies on the complex processes of life and so-called death.

We have here then, an all-inclusive and most scientific art, denominated medicine, which is concerned with the most vital relations of human

life. The merest glance at its field shows that it is the most important of all arts and sciences and, insofar as any other art, science, pursuit, or craft has a vital human significance, so must it be included in the field of medicine in the broad sense. Of all men, the physician with most literal truth can say, "*Nihil humanum mihi alienum.*"

With such a definition, and such a program, small wonder is it that physicians tend to become specialists and sometimes forget the wide horizons of their profession in the narrow delving into some one important but limited scope of endeavor. Every physician is a specialist to the extent that he cannot keep in touch with all human progress which bears on our definition of medicine. He must perforce follow within the limits of time, space and strength which are assigned him. Once in a while, he may on some hill-top of inspiration or introspection, realize how organically close is the connection and inter-relationship between all the intricate and dissimilar parts of human life and progress which have any bearing on medicine as defined above.

So much for the definition of medicine as it affects the physician. There is another and fully as important aspect of the matter. The general public, together with the advocates of certain narrow medical or semi-medical cults, and various faddists, are prone to say that there is such a thing as "allopathy," and "old school doctors," and "regulars." The attention of all these is directed to our definition above. Some of these narrower schools of medical art, as for instance, the eclectics, even go so far as to claim that the advance of modern medicine is due to the revolt of eclecticism from what is misguidedly called the "old school." Such a statement simply illustrates a narrow perspective which leaves out of account the definition of medicine here emphasized.

Modern medicine, as defined, has no quarrel with any agency or method for prevention, cure or alleviation of disease, physical or mental. Modern medicine is all-inclusive of agencies and methods which are of service in the prevention, cure or alleviation of disease. Being scientific and therefore demanding a catholicity of selection of those methods and ideas which shall receive its approval, modern medicine requires that any system or idea must prove its right to acceptance, by the results it can achieve, and that its claims and employment shall not extend beyond the range of its actual merits. To this extent all effective means of prevention, cure and alleviation of disease are a part of modern medicine, and to a surprisingly large extent, are actually employed by medicine in the attainment of its ends. Medicine is not concerned with the local labels which may be appended to certain methods or systems. What is good in these systems it uses and has always used. Its selection is catholic and gauged by two things, accurate diagnosis and accurate fitting to the diagnosis of the best available remedial or preventive agency, be that agency what or whose it may. In medicine there are no patented ideas. Nothing is so democratic as science. There each stands on his own merit. Wealth, fame, posi-

tion, family, help no whit. Medicine chooses from all for service to all.

As has been stated, the criterion of selection of therapeutic agencies is the measure of their effectiveness only. The source is not considered. Two further considerations, however, arise, with reference to their application. In the first place, the individual who seeks to exercise the healing art as a physician, must be honest. In the second place he must have sufficient knowledge of physical and mental anatomy and function as to enable him correctly to diagnose and correctly to fit the remedy to the diagnosis. Proper education is therefore the first and primary fundamental for the physician. Medicine embraces all that pertains to the elimination of disease. It is as absurd to elevate some limited and local truth to the position of a universal system as it is to claim that there is no disease and no need for cure. The one violates medicine's requirement for proper education, while the other makes all existence ridiculous and destroys charity, faith and progress.

The modern physician is not an "allopath," he is not a "regular," he is not "old school" or "new school." "Revolt against the regulars" and the "old school" is about as sensible as revolt against the sunrise or the lunar control of tides. Whenever such a claim is made, look for the woodshrouded African and you will find almost invariably a short-cut to the honor and earned prestige of the real physician, or else an easy way to separate the unthinking public from its cash. The blatant advertising of chiropractice, that it offers a new and lucrative field for quick riches and social prestige, is self-evidence that the cure, prevention and alleviation of disease is but a means to an end, and therefore that the candidate's preparation and effectiveness is to be the minimum which will permit him to twist the principles of medicine to his own selfish ends. In effect, they say, "The public be damned, we want cash, and the prestige of the doctor." Against such tendencies to lower medical practice requirements, legislatures have very properly considered the health of the people, which is their most valuable possession, as of more importance than the pocket books of the claimants for lower entrance requirements. A diffusing knowledge among the people of this and other states, of the real definition of medicine, and of the real objects and results of efforts to lower medical practice requirements, will lead to a concerted and popular backing-up of the legislature in the establishment of a thoroughly satisfactory medical practice act, which shall at once protect the people against the charlatan and the get-rich-quick faddist, and render available for the people the best that modern medicine can give, when unhandicapped by distracting issues and unnecessary burdens.

PHYSICIANS: VARICELLA CASES SHOULD ALWAYS BE REPORTED AT ONCE.

THE CALIFORNIA PROBLEM OF CRIPPLED CHILDREN.

Special attention is directed to the article in this issue by Dr. Harry Leslie Langnecker on "Clinic for Crippled Children." The matter is so

pressing and so little comparatively has been done in this regard that it deserves the earnest attention of the medical profession.

With the realization that over two thousand children, residents of this State, are handicapped by some crippling or deformed condition,—and that deformity amenable to treatment,—the problem of efficient correction and care becomes, at once, a matter of grave medical concern. Indeed there are special reasons why, at the present time, this branch of child welfare work should be carefully investigated, and means provided to handle properly these cases. In the first place, most of the families having a crippled child, are not financially able to obtain the best treatment. As a result the condition becomes progressively worse. As the child grows older the chances for satisfactory surgical results are reduced. In the second place, those cases that are able to attend a free clinic, are not usually the worst deformed and treatment is not thoroughly carried on. They are only partly controlled and therefore the ultimate outcome is not very gratifying to the surgeon. In the third place, the physicians who have been specifically trained in the utilization of the various methods and means for the correction of deformities, are located in the cities, near the larger medical institutions. And finally, the education of these children, possibly owing to their inability to attend the public schools, is sadly neglected and their mental attitude, therefore, decidedly warped.

The idea of an institution where not only the deformity might be corrected, and the means provided for the long period of treatment, but also, at the same time, the child might be given a practical education; seems both sane and logical. Unlike most state institutions, where the main object is to care for the hopeless physically unfit, such an establishment would be a hospital in so far as the disability would need treatment plus a manual training school adapted to educating the child.

Graduation would signify completion of treatment and education equivalent to the grade attained at the same age in the public school.

PHYSICIANS—REMEMBER THE IMPORTANCE OF PROMPTLY REPORTING BIRTHS.

"SCHOOLS ARE PUBLIC NOT THE CHILDREN."

How often have you heard the above platitude? The few that oppose the physical examination of school children regularly rehearse it and sing it in chorus at indignation meetings.

Children's year has impressed upon most parents in California the need and value of frequent examinations. Physical examinations of 53,462 children in forty-five counties of the state disclosed that 46.6 per cent. had defects, 36 per cent. abnormal tonsils and adenoids, 24.7 per cent. were below the height or weight of the national scale, 5.5 per cent. had defective teeth.

In San Diego more than 77 per cent. of the children examined between the ages of one to six years, inclusive, were defective. It is obvious that the wealth of work done during Children's year

will be dissipated if it is not guarded during the school period. It is of interest to all the people that this children's work shall be followed up and that the examination of school children shall be conducted by physicians of scientific ability who can distinguish which ones are suffering from incipient diseases of teeth, tonsils, vision, etc.

Those who resent this as a violation of rights and say, "Schools are public not the children," cannot guarantee that the children will not catch or spread contagious diseases. When children contract and spread contagious diseases among other children they are a "public menace." How are we going to prevent, detect or cure diphtheria, except first by inspection, examination and the administration of antitoxin? It is certainly important to those who are not immune that germ carriers who may spread the infection to others should be detected and isolated.

The courts of this country have held an owner of scabby sheep liable because his sheep broke through a faulty fence and communicated the scab to his neighbor's sheep. What kind of parents are those who consider their children less precious than sheep? Who wants to have his children exposed to smallpox, diphtheria, meningitis, typhoid, etc., because some few are indifferent, careless or skeptical and recklessly remonstrate, "Schools are public not the children."

PHYSICIANS—REGISTER YOUR BIRTHS PROMPTLY.

ANOTHER APPEAL TO CUPIDITY.

Recently another surgical house, with evidently no knowledge or memory for editorials in the Journal last year on this subject, has been sending to physicians coupons entitling the physician to a 20 per cent. discount (or rebate) on goods supplied on the physician's order. Presumably dealers will continue to attempt to fleece their customers just as long as any physicians are found dishonest enough to conspire with them on some such system of rebates or special privileges. Fee splitting is iniquitous and if done by some of the most advertised of the profession, is none the less reprehensible. Rebating on drugs or surgical goods and appliances is equally reprehensible and our indignation at those firms which openly offer such terms is only held in leash by the knowledge that still some doctors are dishonest, and far enough out of touch with medical ideals as to encourage these wretched practices.

PHYSICIANS—REPORT COMMUNICABLE DISEASES WITHOUT DELAY.

ARE THERE ENOUGH DOCTORS?

Common opinion, both lay and professional, says that there are enough and more than enough doctors to supply the medical needs of the country. Recent circumstances, however, throw considerable doubt on the accuracy of this conclusion. The difficulty of the Army and our allies in obtaining the doctors needed for the war was a surprise. Also were we surprised to find the dearth of physicians in many localities when the military need had been met. Hospitals, clinics and laboratories

were confronted with a serious problem in the scarcity of doctors. Industrial concerns and public health agencies likewise reflected the lack. The difficulty in filling the military needs was followed by the drafting of senior medical students even, and then the experience of England and the startling shortage of doctors in civilian lines led to a careful conservation of the available supply of doctors and the exemption of medical students. Even under these extreme conditions, the statesmanlike attitude was preserved that only high class, well-trained doctors are wanted, and the multiplication of medical schools was discouraged and inferior schools were closed.

Dr. I. M. Rubinow in a recent issue of the Medical Review of Reviews undertakes to analyze the question of the supply of doctors in proportion to the demand for them. He estimates the total number of doctors in the United States at 150,000 roughly, as compared with 133,000 lawyers, 134,000 clergymen, 140,000 music teachers and 600,000 teachers of all sorts. It is unnecessary here to dispute over the relative importance of these various classes. Certainly, however, the average family has greater need for a doctor than a lawyer and certainly a doctor cannot expect to serve as large a clientele successfully as can a clergyman. An estimation of one doctor per 600 or 700 population means nothing because of diverse conditions in different sections.

In spite however of the apparently large number of doctors in proportion to the population, Rubinow finds that this proportion has actually shrunk from 1850 to 1910. During the same period he finds evidence that the supply has not kept pace with the demand. This is due to the great expansion of medical inspection of schools, quarantine and public health services. Medical journalism has absorbed many men who otherwise would be practitioners. Laboratory work in all its manifold deviations has taken a small army of doctors additional. Experimental medicine accounts for a goodly number, with whom may be reckoned medical teachers. Insurance has opened a new and growing field. There is a larger demand for doctors in obstetrics, tuberculosis, mental disease, and other lines, than formerly. And even with these factors in mind, the actual proportion of all doctors in the population has decreased in the period noted. During the period when the medical profession was not quite holding its own in point of numbers with the population, the number of lawyers increased 200 per cent., the clergymen by 205 per cent., the teachers by 396 per cent., the dentists by 410 per cent., and the music teachers by 770 per cent. All this while the population increased 138 per cent.

There is plenty of room for well-trained doctors. There is no room and no demand for poorly trained doctors. Medical education is an expensive affair, the most expensive, probably of all education. No institution can do satisfactory medical teaching without an endowment, part of its staff, at least, on a full time basis, and a liberal equipment of laboratory, library and hospital. The half-baked doctor is the sorriest of all poor pro-

fessional types. His tribe is decreasing and must disappear. There is work for every well-trained doctor and this work will increase.

PHYSICIANS: VARICELLA CASES SHOULD ALWAYS BE REPORTED AT ONCE.

MAKING SCIENCE POPULAR.

Seldom has the pressing necessity for translation of scientific knowledge into popular terms been phrased more strikingly than in a recent address by Chester H. Rowell.¹ "It seemed so hopeless to give the public what it ought to have, and so worse than useless to give it what it wanted. The whole mental viewpoints were different. The scientist is cautious, accurate, impersonal. He uses his imagination to jump at conclusions, but as a guide to experiment and investigation. He hesitates to announce a discovery until he has fully verified it, and then he limits himself strictly to the one step he has taken into the Unknown, and avoids flights of fancy into its speculative possibilities. If his knowledge is fragmentary, he refuses to fill out its gaps, and he is resolutely non-committal on what he does not know. He cultivates an impersonal impartiality, and even on a controverted question he would scorn to win a victory by misstating or understanding an opponent's position or evading any of the evidence for it. The public, on the other hand, demands cocksureness, especially on all the consequences which a discovery suggests to the imagination. It is intensely personal, and inquires first what use it can make of the discovery, or whether it confirms or opposes its prejudices. It undervalues accuracy, overvalues vivid picturesqueness, and does not understand impersonality or impartiality at all. How shall the scientific man condescend to such a rabble without losing his soul?"

There is the question and on our answer depends whether we shall see scientific medicine advance or retrograde. Science and especially medical science must see to it that the public is apprised of what science is doing and why it is being done, also that the public is educated in the application of science to everyday life. The great means of doing this is, of course, by education through the popular press, and here is a medium and an audience waiting. This task awaits us and must be undertaken without delay.

PHYSICIANS—REMEMBER THE IMPORTANCE OF PROMPTLY REPORTING BIRTHS.

Editorial Comment

Why do all the new medical graduates wish to locate in a city? Why is there a greater shortage of doctors in small towns and the country than in the cities?

Would that medical writers would take to heart Shakespeare's words,

"Since brevity is the soul of wit,
And tediousness the limb and outward flourishes,
I will be brief."

The Medical Brief very aptly carries this on its cover.

Says the Tennessee State Journal of Medicine, "We would very much like to have the fellow who thinks that the editor of a State Medical Journal has no troubles, come in and correct a few papers for us. . . . All these and some two hundred other things as bad or worse are part of the game that the editor has to play all by himself. If it were not for some safety valves, every editor would swell up and bust at least once each month."

In the New York City Hospitals the incidence of diphtheria as a cross infection has been greatly reduced by applying the Schick reaction to all cases of infectious fevers and immunizing all who show susceptibility to diphtheria. Every physician should know how to perform the Schick reaction and have the means available for it. This is of special importance in small towns and rural districts where the advantages of city health departments are lacking.

The County Medical Society Bulletins in this state are always interesting reading and worth the attention of every doctor. Says the Santa Barbara County Bulletin, "Out of the northern redwoods comes the latest addition to the County Society Bulletins on our table (The Mendocino County Bulletin). These bulletins from San Diego to Fort Bragg, are a long arm of visible good fellowship and unity. Consider the Brother of the north swashbuckling forth in the black nights of rain, among the great redwoods, to ease the croupy child; and look upon the one who plies his way under the midday glare of yellow sun upon the yellow sand in the Imperial. Do you rise?" Of course we rise,—in that same spirit of fellowship and unity which makes the Brother of Mendocino feel the comradeship of the Brother in far away San Diego or Imperial.

"That experience (in Army hospitals) causes me to think that when there are nurses who typify the spirit of true nursing, why should we permit criticisms against graduate nurses as a body because of a few who refuse the call to go where or when needed, thus failing to live up to their pledge of service to their profession? What we need is that the higher standards of nursing be adhered to in our association with physicians and each other; or, in simple language, loyalty to all the ideals our profession stands for." These words are from an article in Southwestern Medicine by Matilda V. Braun, R. N. It is not right that the nursing profession should suffer for the low ideals and poor service of some of its members. The great body of graduate nurses might well emphasize its real position and its real ideals.

A report issued in July 1918, by the Governor-General of Korea states that there are 759 licensed physicians in private practice, of whom 525 are Japanese. Of the 283 hospitals in the country, 258 are private. Medical licensing examinations were held twice in this year and were passed by seven Koreans and seven Japanese. Only the

¹ Science, Aug. 15, 1919.

Japanese and Korean languages are used in these examinations and neither English or any other foreign tongue. This is of interest in connection with the protest in this Journal against medical licensing examinations being given in the Japanese language in California. Candidates not speaking Japanese or Korean are required to take their examination in Tokyo and then transfer to Korea, and have their Japanese license recognized by the local government. The most serious single disease in Korea seems to be distomiasis of which 39,401 cases occurred in this year. Many tropical as well as the diseases of cool climates are found.

PHYSICIANS—REPORT COMMUNICABLE DISEASES
WITHOUT DELAY.

Special Articles

THE NEED FOR A STATE HOSPITAL SCHOOL FOR INDIGENT CRIPPLED AND DEFORMED CHILDREN.

By HARRY LESLIE LANGNECKER, M. D.,
San Francisco.

Most physicians and many laymen, realize the necessity for better treatment and care of indigent crippled and deformed children. Those members of the medical profession who are intimately interested in the treatment of these correctable defects, understand better than anyone else, the lost opportunities in the neglected and untreated cases. Not until last year, has any definite means been taken to ascertain approximately how many children in this State, might be classed under the handicapped group. A survey of cripples¹ under the age of eighteen, was successfully made by the California Federation of Women's Clubs, and a brief review of this report is worthy of comment. Although the desired information had to be gathered from a variety of sources, still, the investigation of 2148 authentic cases demonstrates the imperative need for action. When it is possible to compile complete statistics of the indigent crippled children in California, the number will be astonishing. Further investigation should be undertaken with means and methods provided to treat, educate and care for these children. Give them the best possible chance to mature with the least physical handicap. Should not the state do this for its future citizens?

One only needs to review the remarkable work done in Massachusetts,² and Minnesota,³ to convince the skeptical that such an extension of welfare work, is no experiment, but of real value. Within the past year, since national attention has been focused closely on the physical condition of our children, abundance of evidence confronts us, regarding this matter. Many states heretofore uncertain about the importance of this issue, have made provision through the State

Health Departments, for special attention to these cases.

The following letter written to me by a crippled child's father, tells a story not only in this particular instance, but as the reader will recall, could be told of many similar cases. "When Albert C— was sixteen months old he had whooping-cough and fever at the same time. Dr. W— attended him. When he felt better he tried to walk, but was quite lame. A few days later he was not able to walk at all. The doctor said he had infantile paralysis. I wasn't satisfied to let the child go, so took him to Sacramento, to Dr. W—, and he said the same thing. Then I tried Dr. W— of Roseville, and he also said it was paralysis and it would be hard to cure him. He wanted to try electric treatments, but they didn't do any good. Then I couldn't afford to spend any more money, so was forced to let him go for a while. He crawled around on the ground. We tried many remedies that others suggested, but he always remained the same. I heard of L— Hospital, about eight years ago, and the good it did for many crippled children, and was anxious to take my boy there. I went down, taking Albert with me. The physician examined him and said his legs were in a bad condition, and he thought an operation would help him. He said to come back the next day. I went back. He said if I would leave Albert in the hospital and let him operate on his legs, he could help him quite a bit. But he wanted a price quite beyond my means, and I was forced to let it go; so I took him home again. Four years later I went to the L—Hospital again, and this time you examined him and advised an operation. I told you my circumstances, and only hospital expenses were charged to me. Both legs were operated upon and, after a while, Albert was able to stand on one leg. He was in the hospital three months, and then came home wearing two braces, and he was able to bear his weight pretty well. I took him back several times, and now one leg is quite strong and he wears no brace on it. The other still has a brace but it is getting stronger, and he is able to walk without his crutches."

Is it not our duty to see that such children have the best possible care and treatment? When the importance of these facts are truly realized, then facilities must be originated to better these children.

In the larger cities most of the children requiring corrective treatment may and do attend the larger free clinics, where men specially trained in this branch of surgery correct the faulty condition. Here too the valuable assistance of the Social Service arranges for the funds necessary for the supporting apparatus so frequently required, and even visit the home of the child, in order to carry on effectively the treatment and encourage parental interest in the improvement of the child. But with all these free opportunities open to the city crippled child, frequent relapses occur through lack of realization of the condition by the parents. Bad hygiene and environment, poor and faulty nourishment, frequent change of address, non-attendance at the clinic or inability to attend school are the things the surgeons have to contend with.

1. Survey of Crippled Children in California by California Federation of Women's Clubs.

2. American Journal Care of Cripples. Vols. 1 to 5.

3. The Advantage of a State Hospital for indigent, crippled and deformed children. American Journal Orthopedic Surgery. Vol. XIV, May, 1916.

In the sparsely-settled districts or smaller communities the need is the greatest. For deformities and disease-crippling conditions are most likely to be found in the poorer farming regions. Here, where towns are few and far between, physicians scarce and medical care inadequate, early recognition and treatment is often impossible. The extremely deformed cases may attract public attention and be sent to a city hospital, the expense borne by the county or some philanthropic individual. Difficulties in these cases arise owing to the distance from the place of treatment, or infrequency of medical observation and inability to carry out the corrective exercises or muscle training. The many opportunities of the city child are all denied the country child.

The treatment of these cases necessitates good hospital facilities, daily observation, adjustable braces, muscle training, corrective exercises over a long period of time. The modern medical knowledge of to-day can do much to correct deformities and improve diseased conditions of the bones and joints, and the period of treatment is in many cases greatly reduced; but frequently, and especially in the most severe cases, education can not be carried on during this time, on account of the inability to go to the ordinary school. The best treatment is the only treatment for these cases. Therefore an institution should be established for the treatment, care and education of these children. Any indigent child who may have resided within the State of California for not less than one year, who is crippled or deformed, or suffering from disease through which he is likely to become crippled or deformed, the disease or deformity amenable to treatment, should be eligible. The application for admission should include an affidavit as to the financial status of the parents, or guardian, and a statement as to the deformity and condition of the patient by the physician. Here an effort would be made to correct the deformity. Treatment continued as long as necessary, constantly under the observation of skilled physicians. Proper nourishment given, and according to ability to receive instruction, the educational side carried on in a most thorough and expeditious manner. In directing the treatment to ultimate cure, attention given so that the boy or girl departing takes with him or her a trade sufficiently learned to be self-supporting.

Under the present arrangement, the care of these cases is hit or miss. Those cases receiving treatment are helped in proportion to the interest of parents, the ability of the clinics to hold the patient during the long period of treatment, and the activity and alertness of the Social Service to keep in touch with the patient, assisting the whole family in many and diverse ways to accomplish the one object, namely, the correction of the child's deformity. The element of education is often neglected, and the possibility of self-support in after life is a questionable matter.

Therefore the establishment of a state hospital school for crippled and deformed children will mean the best medical efficiency to the patient, to his family, the community and thereby to the state.

DEATH FROM ACCIDENTAL POISONING BY CARBOLIC ACID.

U. S. Flagship "Pensacola" (2nd Rate)

Panama, February 23, 1872.

Thomas Russell, Nurse, age 23 years, native of Ireland.

The following is a correct account of the affair as far as can be ascertained, viz:

About 4:50 o'clock this p. m. the Apothecary, Chas. O. Hanlon, and Russell, were engaged in arranging the medicines on one of the shelves in the locker in the Dispensary of this ship; the Apothecary turned towards the door to speak to one of the men, and while speaking, his back was toward Russell, who continued his work. The Apothecary states that his back was not turned longer than ten seconds, when hearing an unusual noise behind him, he turned immediately, and seeing Russell in the act of falling, he caught him, laid him down, and sent at once for assistance. Dr. Flint and myself were in the sick bay, we repaired immediately to the Dispensary, seeing the patient within one or actually two minutes, he was then totally insensible; pulseless. Pupils dilated, the respirations were of a gasping character, face pallid and pinched, and, there had been an involuntary discharge of urine. The interval between the respiratory acts became longer, and, after one or two partial efforts, life ceased, respiration continuing for several seconds after the cardiac impulse ceased to be perceptible. There were no convulsions nor vomiting, nothing beyond the condition above described. The fatal event occurred so rapidly that there was not sufficient time for the manifestation of any further symptoms, nor was there an opportunity for the exhibition of any remedial measures. The fatal event occurred in about three minutes from the time the Apothecary heard the first noise.

There was a strong odor of carbolic acid in his breath, but no trace of it about his lips or face. Upon examining the medicines upon the shelf, a bottle of the capacity of one pint, and about two-thirds full of "Acid Carbolic Impure," as furnished by the U. S. Naval Laboratory, was found without the cork in it. As no one saw him drink anything, and as he did not speak or show any signs of consciousness, the natural inference was that, the moment the Apothecary turned away, he hurriedly took up the bottle and swallowed some of its contents by mistake for some stimulant. He was in the habit of drinking whenever an opportunity occurred, and on this account he was never allowed to dispense liquor. The supposition of the accidental origin of the poisoning was strengthened by the fact that a bottle of the same size, containing Tinct. of Ginger was found standing close to the Carbolic Acid, and, as the allowance of Tinc. of Ginger had been nearly used, and could not be accounted for in a legitimate way, it is more than likely that he had been in the habit of taking it, and intended so doing upon this occasion. It was impossible to ascertain the quantity swallowed, but from the manner in

which it was done, it is likely that not more than one ounce was taken.

The body was allowed to remain during the night, a small quantity of ice being placed on the abdomen.

February 24.—Post mortem examination was made at 6 o'clock this morning, thirteen hours after death, rigor mortis well marked, body well nourished, skin pallid, with some post mortem discoloration along the back, no evidence of commencing decomposition. Owing to the inconvenience attending such examinations on board ship, although every facility was afforded me, it was concluded only to examine the stomach and brain.

Upon opening the abdomen, the odor of the Carbolic Acid was very perceptible, and the viscera were in a good state of preservation. The stomach was moderately distended, and intensely congested externally, being of a dark venous hue, it was removed entire, after ligating its cardiac and pyloric extremities. Upon being opened it was found to contain about one pint of a whitish colored liquid, smelling strongly of the acid, and some undigested food having also the same odor. After removing the contents, the whole of the mucous lining gave positive evidence of the corrosive effect of the poison, showing the characteristic white appearance seen after the local application of the undiluted acid. Beneath this white film, the mucous membrane was intensely congested, of a chocolate color, strongly corrugated and much more rigid and tougher than normal. This condition was especially well marked in the oesophagus, in the cardiac extremity and along the greater curvature, and to a less degree along the lesser curvature and at the pyloric extremity, although no part of the inner surface had entirely escaped.

The skull was opened in the usual manner. The scalp and meninges of the brain were very much congested, the vessels being filled with fluid blood of a dark color. There was no effusion of blood or serum either beneath the membranes nor in the ventricles, and with the exception of a very few bloody points of small size in the cerebrum, and some infection of the choroid plexus, the remainder of the cranial contents seemed to be in a normal condition.

The most marked feature in this case, was the rapidly fatal result, it might be almost termed "instantaneous," as from the most careful estimate, not more than three minutes could have elapsed from the swallowing of the acid until death ensued. I scarcely know of any poison capable of producing death in so short a time, except, possibly strong hydrocyanic acid, the symptoms from poisoning from which, I may add, closely resemble those noticed in this case. Having advanced thus far in the history of this interesting case, it may be well to inquire, and if possible, to form some idea of the mode by which Carbolic Acid is capable of destroying life so rapidly.

Two modes have suggested themselves, viz.:

1st—By its powerful irritant effect, applied, as in this case, instantaneously to the whole lining membrane of the stomach and oesophagus, thereby

causing "death from shock," in the same manner as a blow upon the epigastrium, or

2nd—After absorption, by its anaesthetic and paralyzing effect upon the sympathetic and pneumogastric nerves and their connections, thereby destroying or suspending their functions, and bringing about cessation of vital action in important organs supplied by them, as the brain, heart and lungs.

It is a well established fact that Concentrated Carbolic Acid when applied to the skin produces decided anaesthesia. Dr. W. H. Jones, U. S. Navy, now attached to this ship, has upon several occasions applied the acid to the skin of his forearm with the effect of lessening its sensibility in about twenty seconds, to such an extent as to allow the part to be fully incised without pain. It has been used on board this ship, upon several occasions for mitigating pain in opening buboes, and always with good effect. If it causes anaesthesia when applied externally, there is no reason why the same effect should not be produced when applied internally, and it therefore seems reasonable to suppose that the rapidly fatal effect of Carbolic Acid, in this case, can be accounted for in satisfactory manner by its anaesthetic and paralyzing effect upon the great nervous center, subsequent to its immediate absorption from the stomach. Had life been prolonged, or the dose been smaller, doubtless, vomiting, purging and other evidences of its action as an irritant poison would have been observed, but as death occurred too rapidly to be caused by its mechanical effect, or corrosive quality, it seems reasonable to infer that the second proposition is probably correct, and the *modus operandi* of a fatal dose of Carbolic Acid can be referred to the explanation therein contained.

Respectfully submitted,
W. E. TAYLOR,
Surgeon, U. S. Navy.

Original Articles

THE SURPRISING FREQUENCY OF HYPERTENSION IN A GROUP OF YOUNG DRAFTED MEN.*

By WALTER C. ALVAREZ, M. D., San Francisco.
From the George Williams Hooper Foundation for
Medical Research, University of California
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During the last few weeks of draft board work I measured the blood pressures of 264 recruits taken consecutively as they appeared for examination. There were 87 between the ages of 18 and 21, and 167 between 22 and 37. There were a few between 22 and 31. Although the number of cases studied is small, the results are so startling that it seems worth while to report them, if only to raise questions and to stimulate others to make similar studies on larger groups of young people.

The commonly accepted view seems to be that hypertension is a disease of fairly old men who

*Read before the Forty-eighth Annual Meeting of the Medical Society, State of California, Santa Barbara, April, 1919.

have broken down with overwork, or who are suffering from focal infections, autointoxication, nephritis, etc. The last census report states that one out of every five deaths is due to cardiovascular-renal disease. When do these serious defects first make their appearance? Have they just developed when the physician finds them at 45 or 50; or were they there in childhood and youth? I feel satisfied that we can recognize them in childhood if we will look carefully and then not ascribe everything we see to focal infections. One of the big surprises of this war has been the great frequency of cardiac insufficiency in men who have passed the draft and the induction examiners. Even among the carefully picked aviators Whitney¹ found over 5 per cent. who had to be rejected. Men wonder why they have not seen these cases in practice. I believe thousands of them never feel sick enough to consult a physician. Other thousands are not examined carefully and are treated for "nerves," "autointoxication," "indigestion," or what not. Others are studied intelligently, but the slight abnormalities found are often considered trivial and of no significance.

The following table (Table 1) shows the systolic pressures of 265 recruits arranged according to age. I have chosen 130 mm. as the dividing line between normal and abnormal because years of attention to this point have convinced me that pressures of 130 or more are associated sooner or later with some symptoms.

It will be seen that there were more men with systolic pressures over 130 than under (201 to 64). Of the 19 year group there were 6 with pressures of 150 or over; of the 20 year group there were 15 over 150 and 3 over 170. Three men in the 34 year group had pressures over 190, and a 36 year old man was unaware of the fact that he had a pressure of 275.

These results seemed so incredible at first that I spent considerable time looking for sources of error. As I was using a Tycos manometer, I compared it frequently with the Mercer instrument which I use at the office. If anything, the Tycos readings were a little lower than those with the mercury scale. The pressures were taken before the exercise and with the men standing. Many were very nervous and others were shivering from cold. Little difference could be found, however, in individual readings when some of the tests were repeated with the recruit warm, less nervous and lying down. To answer objections, we might deduct 10 mm. from all the readings and still we would have surprising results.

The most satisfying proof of the essential accuracy of the blood pressure readings appeared when Table 2 was made up. This showed that whereas most of the men with low pressures were normal cardiovascularly, most of those with hypertension had other signs of heart and arterial inferiority. Many had enlarged, irritable hearts which showed poor responses to exercise; others were more or less cyanotic, and others had been rejected by recruiting officers because of questionable or evanescent murmurs. Unfortunately urinalyses were not obtained. At the office I find that people with

TABLE I.

Blood Pr.	Age																			
	18	19	20	21	23	25	26	27	28	29	30	31	32	33	34	35	36	37		
200-275.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—
195-199.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
190-194.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	1
185-189.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
180-184.....	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—
175-179.....	—	—	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
170-174.....	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
165-169.....	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
160-164.....	—	—	1	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	4
155-159.....	—	—	2	3	—	—	—	—	1	—	—	—	—	—	—	—	—	—	2	1
150-154.....	—	—	3	4	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	4
145-149.....	—	—	6	8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	5
140-144.....	—	—	6	4	1	1	—	—	—	—	—	—	—	—	—	—	—	—	1	2
135-139.....	—	—	1	5	3	4	—	—	—	—	—	—	—	—	—	—	—	—	1	2
130-134.....	—	—	1	3	1	1	—	—	—	—	—	—	—	—	—	—	—	—	3	9
100-129.....	—	—	9	8	4	—	—	—	1	1	—	—	—	—	—	—	—	—	5	11

TABLE II.

Systolic Pressure.	Apparently		Per Cent	
	Normal.	Abnormal.	Normal.	Abnormal.
100-129.....	51	13	80	20
130-135.....	21	25	46	54
136-140.....	7	22	24	76
141-145.....	10	25	29	71
146-150.....	5	21	19	81
151-155.....	3	7	30	70
156-160.....	4	18	18	82
161-165.....	1	10	10	90
166-275.....	0	22	0	100

even slight increases in blood pressure occasionally have traces of albumin, and almost always a few red blood cells in the sediment.

It will be noticed in Table 2 that 10 of the men with normal pressures appeared to have some cardiovascular deficiency. Some showed a slight enlargement of the heart; two had tachycardia, two were chronic alcoholics; one was very nervous; another was a deformed little man with rotten teeth and bad varicose veins, and three had valvular disease.

Following are some examples to show the way in which the notes were made. The pulse readings were taken just before hopping about 100 times on one foot, just after, and two minutes later.

TABLE III.

Age.	Blood Pressure.	Heart Enlarge- Cyan- Pulse. ment. osis.			Remarks.
20	165/98	84	†	†††	Irregular pulse. Systolic murmur.
		132			
		96			
34	138/95	100		††	Gray haired old man; looks 50. Marked art. scler. Bad varicose veins.
		132			
		110			
20	165/110	96	††		Pale edematous face of nephritis.
		144			
		108			
20	170/110	84	†	††	Second aortic markedly accentuated.
		120			
		84			
20	160/90			††	Underweight. A nervous wreck.
20	164/100	110	†		Still wets the bed. Has had "kidney trouble." Blind in one eye. Dyspnoea on exertion. Heart shakes his chest.
		165			
		130			
36	160/85	144	††		Heart markedly overacting. Tachycardia.
		180			
		132			
34	170/105	140	††	††	Dyspnoic. Tachycardia.
		180			
		150			
19	145/94	108	†	†††	Mitral systolic murmur.
		156			
		108			
33	134/80	120		††	After lying down a while pulse was 106.
		132			
		120			
33	145/90	90	†††	†	Edema of the legs. Professional bicycle racer.
		100			
		96			
20	175/90	96	††	††	Heart shakes his chest. Boy is underweight.
		132			
		100			
20	150/85	120	††	††	Dyspnoic. Tachycardia.
		160			
		144			

DISCUSSION.

The best explanation for this high incidence of cardiovascular disease would seem to be that I was dealing with a selected group of men. That, I feel sure, was the case. Many of those below 21 had tried to enlist and had failed. Healthier and more ambitious youths had managed to get into the various branches of military service before the second draft was begun. Those men between 21 and 31, and some of the others were caught in slacker raids and were in custody when examined. Most of those between 32 and 36 were Class A men, unmarried, without dependents or productive occupations. Some had tried to enlist, but many appeared in the light of slackers because they had remained at home without responsibilities to keep them there. One must conclude, then, that a large percentage of slackers are physically unfit and below the average. I believe many of them are slackers because of this physical (and often mental) unfitness.

One of the worst features of hypertension is that early in life it may make the individual uneasy and apprehensive about his health. It is the only abnormality I can find in hundreds of so-called hypochondriacs. Some people are like a man driving a big new car; they feel no concern whatever about the machine. The victim of hypertension often resembles a man driving an old second-hand machine; every rattle and squeak worries him and takes the pleasure out of his trip. He feels like stopping at every other garage to make sure that he is not going to have a breakdown. My experience with industrial accident cases has shown me that when these men with high blood pressure are injured it is very difficult to get them well; they are so pessimistic and so sure that they are ruined for life that it is very hard to get them started to work again. Of course there are exceptions to this rule. I recall three women in particular who keep at their work sensibly and unconcernedly in spite of pressures around 250 mm. There apparently are different types of the disease in which nervous, arteriosclerotic, nephritic or cardiac symptoms predominate.

A large number of the men in the group studied were unmarried and I believe many were so on account of their hypertension. A man who is uneasy about his future and who spends a good part of his spare time fussing about his health is likely to avoid the extra incumbrances of wife and family.

I believe that if blood pressure readings had been demanded for all recruits the allied armies would have been spared much of their trouble with "irritable hearts." Most of the writers on the subject hardly mention blood pressure; a few state that it was normal; others dismiss the subject with the statement that it was generally higher than normal but not enough to have any significance. Robey and Boas, in an excellent article on "Neurocirculatory Asthenia," give the pressures as usually between 135 and 170². I believe even the slight increases have significance. The mistake we make is to think of the hypertension as primary. In that case we could disregard it until it reached 175 or 200, where it could put a heavy strain on the heart. The rise in blood pressure cannot be primary—it must be but one of the signs of a hereditarily defective cardiovascular system. It might be said that in certain families "the contractor has put in poor materials"; one dies with apoplexy; others have nephritis, angina, diabetes, heart-disease, arteriosclerosis, flushings, etc. The children have polyuria, transient albuminuria, heart disease, and nephritis after contagious diseases. These statements are based upon a large series of family histories which I hope to publish some day. Dr. James Mackenzie describes these individuals under the heading of the "X" disease. He calls it that because he does not know what it is. He speaks of the cold hands, irritable temper, irritable heart, mental peculiarities, and digestive disturbances which he says his colleague Arbuthnot Lane calls ileostasis³. I might add in passing that anyone who wants to study the early stages of cardiovascular disease should become known as a gastroenterologist. The heart specialist gets some of the final wrecks and the people with murmurs. Many even of the final wrecks go to the gastroenterologist. The most difficult work I have to do is to differentiate between the flatulence, epigastric pain, nocturnal distress, large tender liver, icteric tint and loss of weight due to gall-bladder disease and the flatulence, epigastric pain, nocturnal distress, large tender liver, icteric tint and loss of weight due to a failing high-blood-pressure heart. Often the patient's blood pressure has already dropped nearly to normal when he consults a physician; often there are no murmurs, and not infrequently he has both cholecystitis and heart failure. Sometimes the loss of weight is so rapid and the clinical picture of gastric carcinoma so well imitated that the family physician refuses to accept my X-ray findings, ignores the changes in the cardiovascular system,

TABLE IV.

	No Cyanosis.	Cyanosis Present.†	Cyanosis Marked.††	Marked and Widespread.†††
Number of Cases.	151	34	68	12
Average Pressure.	137.7	143.2	149.0	156.0
	Of these 15 had pressures over 160.	Of these 6 had pressures under 130. In 2 no explanation was found. One had mitral regurgitation. One was a chronic alcoholic. One showed sexual infantilism. One was underdeveloped and underweight.	Of these 9 had pressures under 130. In 2 no explanation was found. Two had tachycardia. One showed a poor pulse response and an enlarged heart. One was markedly neurotic. One had mitral regurgitation. One was prematurely senile. One was underweight.	Of these 1 had a pressure under 130. He had pulmonary tuberculosis.

and orders the patient to his death by the way of an exploratory laparotomy.

ENLARGEMENT OF THE HEART.

A remarkable feature observed not only in these recruits but in scores of cases seen in practice is that the enlargement of the heart and widening of the aorta is out of all proportion to the amount of pressure. The X-ray will often show pronounced bulging of the arch with pressures around 135 mm. of mercury. Only recently I saw an example of this in a boy, the son of an advanced nephritic who already, at the age of 14, has a large heart, a definitely widened aorta and a systolic pressure of 127. Another, a girl of 17, who has lost several relatives with nephritis, has a large heart and a pressure of 200 mm. In neither of these cases is there any sign of focal infection, syphilis, or valvular defects.

In the group of drafted men there were 79 with slight cardiac enlargement and 27 with marked enlargement. The average pressure in the first group was 147.7; in the second group 166 mm. In the first group there were 14 with pressures of 130 or less. Of these, one had a high diastolic pressure and was probably a nephritic; two had a poor pulse response to exercise; two had tachycardia; one had mitral regurgitation; one was a chronic alcoholic, and seven showed no cause for the enlargement. Three of the seven had cyanotic hands. Of the men with marked enlargement only one had a pressure under 130 and he had tachycardia.

It is an interesting fact that a number of the men with high pressures had such good compensation that they could engage successfully in athletics. One man with a pressure of 145/90, a great big heart and edema of the legs, was a professional bicycle racer.

Some of the worst pulse responses were seen in the alcoholics. There were 14 of these in the group with an average pressure of 145. A painter of 34 had good arteries and a pressure of 125/90. Hereditary good kidneys probably saved him from harm.

A VALUABLE SIGN OF THE HYPERTENSIVE DIATHESIS.

This study has brought out the value of what seems to be a hitherto almost unrecognized sign of hypertension. When these men were stripped in a cold room the hands and legs of some of them would soon be markedly cyanotic. In some, the cyanosis of the hands was a striking feature when they came in. For months before I began taking the pressures on every case I had been picking out high pressure men almost unerringly by this sign. The following table (Table 4) shows that it is not infallible unless perhaps when it is pronounced. In the worst cases it is marked not only in the hands but on the backs of the legs and thighs and on the face. The cases were arranged in groups as follows:

This table shows that one can easily miss cases of hypertension by relying upon this sign alone;

but when it is present and well marked there is almost always some abnormality of the cardiovascular system. I have seen it quite marked in young children where perhaps it will be found to have prognostic significance.

Major Robey is the only one I have found so far who seems to appreciate the value of this sign. In the discussion on his paper last year he said: "If the man has tremor, rapid heart and cyanosed hands, with a history, then it is quite clear that he comes within this group and should not be accepted."

VARICOSE VEINS.

There were 10 men in the series with varicose veins. I suspected that the poor material might be found not only in the arteries but in the veins, but the data obtained from this group are inclusive. The systolic pressures were as follows: 125, 126, 132, 136, 136, 138, 142, 145, 150, and 156. The average is 138.6, which is lower than that for the group as a whole. My impression is that the men with varicose veins seen in the first draft generally showed hypertension, but unfortunately I did not keep notes. It may be that this condition is more common in people with slight hypertension than in people with normal or very high pressures.

BLINDNESS IN ONE EYE.

It is an interesting point that five of these young men were practically blind in one eye. As I remember, most of them could count fingers at from 3 to 8 feet. Their pressures were 135/90, 145/90, 150/90, 175/120, and 180/118. I have seen many similar cases in practice. Most of these men testified that the defect had been discovered accidentally; that oculists had remained puzzled as to the cause, and that no help could be secured from glasses. I am sorry to say that I have no reports from the oculists as to the findings in these cases. Two of the men with high diastolic pressures may easily have had retinal hemorrhages.

SUMMARY.

A large majority of a group of young men called in the second draft showed hypertension. This was often associated with an enlarged, irritable heart, a poor pulse response to exercise, and cyanosis of the extremities.

Many of these men were slackers; some were in custody. Many were bachelors and practically all were without responsibilities or productive occupations.

It seems likely that many of these men had evaded the responsibilities of life because they were physically defective.

Marked cyanosis of the extremities is proposed as an important sign of hypertension or of the hypertensive diathesis.

Hypertension must be watched for not only in the aged but in the young. The writer considers it as one sign of a hereditarily defective cardiovascular-renal system.

References.

1. Whitney: J. Am. Med. Assn., 1918, 71, 1391.
2. Robey and Boast: J. Am. Med. Assn., 1918, 71, 525.
3. Mackenzie: J. Am. Med. Assn., 1918, 71, 529.

AMINO ACIDS AND HYPERTENSION*

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The metabolism of matter and the formation of wastes, are normally supported by the food, but if no food is taken, these processes still continue at the expense of the body substance. The expenditure of energy, which is never ceasing in the living body, includes the work involved in carrying on the internal processes which are essential to life itself, and the expenditure of matter cannot cease, as the energy for this necessary work is obtained by the breaking down of organic compounds of the food, or of the body into simpler compounds, some of which are of no further use and must be eliminated, while others form the building materials from which the body structure is renewed. When the food supplies sufficient energy, the body substance is protected. When the food is insufficient, body substance is burned as fuel. Therefore, we must know whether the fuel requirements of the body have been fully met before we can intelligently consider its nutritive requirements. Carbohydrates, fats, and proteins all furnish fuel, but proteins alone serve for maintenance and growth of body tissue. However, as amino acids are what the body needs and not proteins as such, there must be a definite amount of that class of proteins which contain all the amino acids, since the human body cannot synthesize them, and a lack of either may make it impossible for the organism to manufacture its own tissue protein, and in consequence it suffers a kind of starvation.

Nutrition has been studied from different angles and by many different methods, and still there is much to be learned. The method which at present is engaging the most attention is that which seeks to follow the chemical composition of food in its course through the animal organism. This includes a biochemical analysis of the component parts of the various foods, especially of the proteins.

Until within the present century all proteins were regarded alike in dietary value, and Liebig, Voit, Pflüger, and Rubner in turn advanced their views of protein metabolism, all of which were finally disproved by Folin and others,¹ who also demonstrated the fact that protein disintegration was accomplished in the digestive tract by a series of hydrolytic splittings, and that nitrogenous nutritional requirements could be supplied by a mixture consisting of the products of hydrolysis of the protein molecule. Dogs were fed on the products of the self-digestion of the pancreas, and on this diet, which contained not a trace of protein, body weight was maintained. It has since been demonstrated that life can be supported upon a diet consisting of a suitable mixture of amino

acids.² A boy with an esophageal stricture, on whom gastrotomy had been performed, was fed per rectum on the digestive products of meat, obtained through the combined action of trypsin and crepsin. Not only was nitrogen equilibrium maintained, but the body weight increased. Such experiments, Underhill³ claims to be conclusive evidence, that we must regard the amino acids as food stuffs which are sufficient for the nitrogenous needs of the body and that the nutritive value of any protein is dependent upon the content and character of its amino acids.

The protein molecule is digested by the action of pepsin, trypsin, and crepsin down to amino acids in the digestive tract. This action, however, is a gradual one and more in the nature of a slow erosion than that of a rapid explosion. There are eighteen individually distinct amino acids which, though they resemble one another structurally, cannot substitute each other. Chemically, they are organic acids in which one or two atoms of hydrogen have been replaced by the amino group NH_2 . According to Van Slyke,⁴ the most striking characteristic, which is common to all amino acids, is the occurrence in the same molecule of an amino group with the basicity like that of ammonia, and an acid group with an acidity like that of acetic acid (hence the name amino-acid). He likens the entire protein molecule which is a chain of amino acids to a long train of automobiles all with the same black uniform bodies, but with tops of eighteen different shapes, and of three different colors, according to whether their properties are acid base or neutral. Chemically stated, the complete digestion of a protein molecule consists in splitting or breaking this long chain into shorter chains, the albumoses, then into still shorter chains, the peptones and peptids, and finally the individual amino acids of which it is composed. Until within the past five years, nothing was known of the fate of the amino acids after they left the intestinal tract. At that time, Van Slyke states, the mechanism of protein nutrition stopped short against the intestinal wall. Folin and Van Slyke⁵ later proved beyond question that amino acids were normally absorbed directly into the blood from the intestines, and from the blood distributed to the tissues without further chemical change, those not needed for synthesis being changed by a process of diamination into ammonia and urea, the carbonaceous residue being transformed into carbohydrates, yielding energy. The tissues absorb amino acids rapidly, but never completely. The blood, normally, always contains about 0.1%, while the tissues contain ten times this amount. The free amino acids stored in the

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1. Folin: American Journal of Physiology, 1905, 13, p. 45.

2. Alderhalden: Zeitschrift für physiologische Chemie, 1912, 77, p. 22.

3. Underhill: The Physiology of the Amino Acids, 1915: Yale University Press.

4. Van Slyke: Donald Archives Internal Medicine.

5. Folin & Van Slyke: Journal A. M. A., 1914, 63, p. 823.

tissues may be regarded as a form of reserve food. This reserve, however, does not disappear during long fasting. On the other hand, they tend to increase during starvation.⁶ These facts are believed to indicate⁷ that the amino acids are intermediate steps, not only in the synthesis, but in the breaking down of body proteins, and that autolysis is the main source of free amino acids found in the fasting body.

The urea formation while taking place in every tissue of the body is accomplished mainly in the liver. That organ is the principal factor in absorbing amino acids from the blood stream and also in the chemical transformation which precedes the elimination of urea. Van Slyke and Meyer state, that the liver, also, constantly desaturates itself by metabolizing the amino acids that it has absorbed, and thus maintains indefinitely its power to continue removing them from the circulation, so long as they do not enter it faster than the liver can metabolize them. If they enter too rapidly, or if the liver function is lowered, the amino acids increase in the blood, and the kidneys assist by excreting them unchanged. An excess, therefore, of amino acids in either blood or urine, might indicate a lowered function of the liver. Indeed amino acids have been given as a test for functional activity of the liver. It has also been stated, that mild cases of diabetes, while lacking the ability to oxidize glucose, still possess the power to change amino acids to glucose, and that a lack of this ability might be taken as an indication of lowered liver function. All of these results tend to change our older theories of metabolism as Underhill observes, and it becomes evident, that in any consideration of protein transformation within the organism, either in health or disease, amino acids are the substances which demand attention. Moreover, he adds, that at present the investigations are being narrowed down to the point of the determination of what actually occurs with the individual amino acids and what special role in the body nutrition, each one plays.

The defective proteins which are incapable of supporting life or promoting growth, are found to be lacking in one or more of the amino acids. It has been recently shown⁸ that physiologically active substances are formed from amino acids, and if the main nitrogenous element in the diet is one of the defective proteins, there may be an imperfect functioning through failure to supply the raw materials needed by certain glands to elaborate their specific products. The normally functioning thyroid gland contains an iodine compound, which is believed to be formed from tryptophane. Therefore, if the protein in the diet contains no tryptophane, a corresponding disturbance of this gland may result. Adrenaline, a physiologically active substance, is probably derived from tyrosine and a continued lack of this amino acid in the diet would indirectly lower the function of the adrenals, resulting in certain abnormal symptoms, but differ-

ing from those of starvation. The pituitary gland also manufactures a physiologically active substance which is derived from the amino acid, histidine.

As before stated, the cleavage of the protein molecule occurs in the digestive tract, by the activity of the enzymes normally formed there. This cleavage, in general, resembles the products of putrefaction caused by the activity of bacteria. Bacterial activity, however, causes a different type of products; the specific substances formed are chemically different, and of necessity occur in different parts of the intestinal tract, since it has been found that little or no putrefaction takes place in the small intestine, and that practically no proteoses or peptones are ever found to pass the ileo-caecal valve. It would therefore seem that amino acids, principally, are concerned in the putrefactive processes in the intestinal tract, and, moreover, that this putrefaction occurs in the large intestine only. We are familiar with the putrefactive products of the aromatic amino acids, tyrosine and tryptophane, which are first deaminized, then further torn to pieces by the activity of bacteria to form the familiar substances, indole, skatole, phenol, and the oxyacids. The chemical reactions are the same with each of these amino acids, first ammonia is split off, then carbon dioxide, and finally oxidation and demethylation takes place, but from tryptophane, we have as a result, the malodorous bodies, indole and skatole, while from tyrosine are formed phenol, para-cresol, and the oxyacids. These products are easily detected and as a rule are a fairly good index of the extent of intestinal putrefaction, but they are only a small portion of the substances which may be actually formed and absorbed from the intestinal tract. Indeed with no detectable indole or phenol, there may be formed from tryptophane and tyrosine extremely toxic substances which are also characteristic of putrefaction. The splitting off of carbon dioxide by the so-called carboxylase bacteria, may occur either before or after deamidation. If it occurs before, compounds known as amines are produced, which are highly toxic and act principally upon the nervous system. These amines exert a powerful effect upon blood pressure and are believed to cause thickening of the artery walls. In 1907 Dixon and Taylor, using an alcohol extract of placenta, observed that when injected intravenously into animals, it caused a marked rise in blood pressure, and also contractions in the pregnant uterus. However, it was shown later that these symptoms did not occur, if the placenta had not first undergone putrefaction. Emerson had already isolated a similar substance from the so-called self-digestion of the pancreas, but it is now believed that this substance also was formed through bacterial agency. This particular body is known as para-oxyphenylethylamine or tyramine, and is produced from tyrosine by the liberation of CO₂. Tyramine resembles epinephrine chemically, and exerts a similar influence upon the sympathetic nervous system, though weaker in its action. It is found outside the body in a variety of cheeses, as Camembert, Roquefort, and in some American

6. Van Slyke: Archives Internal Medicine.

7. Van Slyke & Meyer: Journal of Biological Chemistry, 1912, 12, p. 399; 1913-1914, 16, p. 187, p. 213.

8. Alsborg: Lectures on Nutrition, 1916, Washington Academy of Sciences.

cheeses, and is the active principal of ergot. From leucine in a similar manner may be formed isoamylamine, while from tryptophane is produced indole ethylamine. Histamine, a very powerful toxin, is formed (by the action of putrefactive bacteria) from histidine. Its action on the nervous system produces symptoms identical with those of anaphylaxis. In like manner the diamines, cadaverine, putrescine, and tetramethyldiamine are formed respectively from lysine, arginine, and ornithine.

It becomes evident, therefore, that in a study of hypertension, we must reckon with not only the amino acids, but with the bacteria concerned in intestinal putrefaction. During the past three years in making observations on the flora in intestinal putrefaction we found that we could change the flora at will by changing the diet, and that coincidentally with a continuous carbohydrate diet there was a disappearance from the urine of the absorption products of putrefaction. More recently, Kendall, of Northwestern University, has demonstrated that the intestinal flora are definitely related to the diet of the host, also that putrefaction may be retarded by a carbohydrate diet, and records some interesting facts as a result of his experiments. He reminds us that the bacillus bifidus which is obligately fermentative, requiring carbohydrates, is characteristic of the flora of nurslings, producing a constantly acid reaction. As the child becomes older and the diet includes more protein, this type of bacteria decreases and there is a remarkable increase in the colon bacilli which are facultative and can grow equally well on either protein or carbohydrate pabulum. The entire life cycle of these bacteria is carried on within the intestinal tract of its host and the metabolism of both microbe and host are similar in many respects. The products of the metabolism of normal intestinal bacteria are harmless, but according to the diet of the host, even a colon bacillus, which is a lactic acid bacillus, may play a dual personality. If it becomes necessary for a colon or a proteus bacillus to utilize proteins for energy, an enzyme is formed, the function of which is to prepare the protein product for assimilation, and in accomplishing this, certain chemical changes take place, as various substances are split off in order to find the carbohydrate residue necessary for the energy of the bacteria. If, however, utilizable carbohydrate is available for their energy, these enzymes are not formed. The chemical products of many of the pathogenic bacteria, in the presence of utilizable carbohydrates, are identical with those of the lactic acid bacilli, while these same organisms, if grown in carbohydrate-free media, form their specific highly toxic products. The protein sparing effect of carbohydrates, so well known in the metabolism of the human body, is here demonstrated in the metabolism of bacteria, and this fact is well worth our consideration, since we may thus shift the metabolism of intestinal bacteria by supplying available carbohydrates for their energy with a resulting formation of benign products.

During the past eighteen months we have made observations on a number of patients with varying degrees of hypertension. These observations, which

have extended over periods of weeks or months, consisted of daily examination of feces, daily study of body metabolism, together with functional tests of liver and kidney. Some of these patients had lowered kidney function, others had lowered liver function, some had both, while still others had neither, but all responded promptly to a carbohydrate diet by a lowering of the blood pressure and a lessening of the products of putrefaction. Proteids were gradually and carefully added, but only up to the actual body requirements, always watching the effect upon the intestinal flora, providing for normal intestinal motility and keeping the carbohydrates so much in excess that they could not all be absorbed from the upper intestinal tract, thus insuring plenty of available suitable pabulum for the necessary energy of the intestinal bacteria.

At the present time lowered kidney and liver function, lowered pancreatic function, anemias and a number of other diseases are being cured by a proper adjustment of diet, and now hypertension may be alleviated or cured in like manner, simply by preventing the amino acids which have safely passed through the fires of protein metabolism, from being torn to pieces by the intestinal bacteria to furnish their necessary energy. Verily we live around the digestive tract.

A STUDY OF ONE HUNDRED AND FIFTY CASES OF HYPERTENSION.

By ROLAND CUMMINGS, M. D., Los Angeles.

The subject is so extensive that we have limited our studies to the etiology and the treatment as carried out in the cases reported. It seems best here to define some of the terms or expressions which will be used throughout the paper.

Apical abscesses are spoken of only when the X-Rays have unquestionably demonstrated an abscess at the apex of the root of one or more teeth. The expression "bad teeth" refers to teeth that are crowned, or to a condition, which, from the appearance of both teeth and gums, is suggestive of root abscesses, but in which no X-Rays were taken.

The statement of a positive history means that one or both parents have died of apoplexy, uremia or heart failure. Moderate sclerosis refers to the radials, which, when empty, are palpable. Moderately severe sclerosis refers to radials which are becoming tortuous. Severe sclerosis to those becoming tortuous and beaded; while very severe designates a pipe-stem condition of the blood vessels.

By the term "nervous," we refer, first, to a group of patients with nervous temperaments who are high strung, intense, always keyed up to a high pitch, always on the go, never relaxing, whose motors always run at high speed. This group doesn't know how to play, but are Rooseveltian in that they are intense in all they do and a vacation means a change of but more strenuous work. These patients are always prompt at their appointments, are exacting, and in business very successful. The second group compose women who are in the menopause period.

The following cases reported were a group of

patients seen by Dr. Dudley Fulton and myself during the past four years, whose systolic blood pressures were 160 or above, and upon whom we had sufficient data to warrant a study.

Of the 150 patients, 129, or 85 per cent. were between the ages of 40 and 70 years. Eighty-four, or 56 per cent., were females, while 66, or 44 per cent., were males.

One hundred and thirteen of the 150 belong to the nervous group. Forty-five of these being patients (women) in the menopause period. Ninety-six of the 150 used no tobacco, while but two of the remaining gave a history of using it to excess. One hundred of this group were total abstainers, and but three gave a history of liquor abuse. Sixteen patients were afflicted with over-eating, and 17 with obesity. Thirty-one, or 20 per cent., had apical abscesses and 32 had bad teeth. Chronic constipation was present in 65, or 43 per cent.

The Wassermann test was done in 52 cases, being negative in all but one instance.

Thirty-five patients had the distinct signs of infected tonsils. How many more had this same condition, I do not know, but undoubtedly a goodly number.

A complete urine examination was done in 136 patients, a trace of albumin being found in practically all. Casts were present in but forty, however. Of 57 subjects upon whom the phthalein estimation was done 43 were normal and 14 below normal. The blood nitrogen was estimated in 44, being above normal in but six.

To classify the series into those who have a primary nephritis hypertension, and those who have a hypertensive cardio-vascular disease, according to Janeway's classification, we find thirty in the former group and 120 in the latter.

It has been almost one hundred years since Bright called attention to cardiac hypertrophy in nephritis. During this time there have been a thousand and one theories advanced to account for this condition and the accompanying increased blood pressure, but almost all have been disproven.

Von Bash, about one-half century ago, was the first to experimentally measure blood pressure, but it was twenty years before instruments were perfected so it could be estimated clinically.

There are two theories that persistently cling regarding the cause of hypertension, theories that are thoughtlessly held to-day.

First. That this condition is due to arterio-sclerosis.

Second. That increased blood pressure is synonymous with, and usually preceded by nephritis.

It has been definitely proven that primary arterio-sclerosis is not accompanied by hypertension, and that the sclerotic changes found in patients with high blood pressures are the results and not the cause. It has also been proven that the majority of hypertension are not preceded by a nephritis.

Experimentally there are certain things that will increase blood pressure, such as barium chloride, lead poisoning, adrenalin, some portions

of the incompletely oxidized proteid molecule and glomerular nephritis.

Lead poisoning will produce a perfectly typical picture of hypertension, followed by sclerosis of the blood vessels and the development of interstitial changes in the kidneys.

Many have clung to the theory of a toxemia of intestinal origin, but have never isolated the toxins. General credence is given, however, to the belief that blood pressure will be greatly raised by spasms of the splanchnic vessels as a result of constipation.

Those who think of arterio-sclerosis and hypertension synonymously, look to overeating, the abuse of liquor and tobacco, overwork, improper exercise, etc., as great causes. Others, as Martin Fisher, think infection lodging in the vasovasorum produces this condition.

The theory is also advanced that excessive innervation or stimulation from the nerve centers increase vascular tone, thus tending to push pressure up.

Bittorf has advanced the theory that hypertension is due to a disease of the depressor nerve or its endings in the aorta; thus messages that are sent to the brain which bring back a vasodilator response, are shut out.

One of the most fascinating and clinging theories has been that of increased activities of the supra-renals. The legs have been gradually knocked from under this by the inability to demonstrate any disease of the adrenals in hypertension, by the inability to find an increased amount of adrenalin in the blood in hypertension, and by the fact that the adrenals have been removed without a drop in pressure taking place for two or three days. Changes in other internal secretions have been advanced, but no definite proof has been forthcoming.

Increased blood viscosity was thought to be a cause for years but this bubble has burst since viscosity has been found normal in hypertension.

General infections, as syphilis, typhoid, etc., appear to produce increased pressure at times, but these causes are certainly rare in comparison to the frequency of the condition. Many other less possible causes are mentioned. In fact, when I look into the literature on this subject I am reminded of a reviewer, who, after reading a dissertation upon a certain disease, exclaimed "we would ask what the conditions are which do *not* bring on this malady."

In the group of thirty patients whose increased pressure was due to kidney disease, I have included the prostatic obstruction cases also. This then, leaves 120, or 80 per cent. of the subjects whose hypertension was due to causes other than renal disease. This group belongs to those designated under the term "Hyperpyresis" by Albutt and the presclerotics of Huchard. I confess to find, upon looking the histories over, so few belonging to this group of primary renal hypertension.

I do not wish to be understood that none of the patients not belonging to this group had nephritis, for many of them did. In fact, all who

had had a high pressure for several years had all the signs of interstitial changes in the kidneys.

The group designated as being nervous, number 113, or 75 per cent. Subtracting the 45 who were in the period of the menopause, still leaves 45 per cent. of the entire number of patients. This, it seems to me is very striking, and if a larger series would still hold to the same proportion, would be a very suggestive hint as to the basic cause of the greater percentage of hypertensions. Some one will say that the nervous symptoms were the result of the increased blood pressure. To those I would emphasize the fact that the nervous symptoms greatly antedated the possibility of an increase in blood pressure.

How the nervous state caused a gradual pushing up of pressure is a question, the answer of which is not at present clear, but that it does do this I have no doubt. It is certain that there is either an increased vasomotor stimulus of central origin, or a hypertensive substance in the blood. If the adrenalin theory were true matters would be greatly simplified. No doubt being nervously strung up, strenuous and intensive in man is analogous to fear in the animal. According to naturalists, when an animal is scared there is an immediate pouring out of adrenalin, which causes the mobilizing of blood sugar and an increase of blood pressure. Thus the muscles are supplied freely with energy for fight or flight. The fear soon passes and the animal returns to normal.

In the nervous type of man this same condition in a modified form is constant, hence, with a continuous over secretion of adrenal substance bathing the vessels from month to month, would it not be natural for the pressure to gradually rise? To me this is an interesting theory, but by no means proven.

With the group whose pressures arose during the period of menopause, it is reasonable, especially since it is so large (30 per cent. of the entire series) to reason that the increased blood pressure is a result of the things that cause the menopause which is probably based upon a change or partial cessation of ovarian function.

Such a large percentage have apical abscesses and bad teeth, 40 per cent. combining both groups, that it makes food for thought. How great a factor this condition is can only be ascertained by greater study.

Infected tonsils belong in the same category as infected teeth. About 25 per cent. of the series had undoubted chronic tonsillar infection. This number is great enough to be seriously considered from an etiological standpoint.

It also seems plausible that, inasmuch as 43 per cent. of the whole number suffered from chronic constipation, this condition has a distinct bearing on hypertension. Splanchnic spasms seems the mode by which this condition operates. However, the splendid work of Alvarez notwithstanding, it is difficult not to believe that occasionally one sees a patient who is absorbing a hypertensive substance from the bowel.

Our series would lead us to believe syphilis played a small part in producing hypertension. Wasser-

mann reactions were done on all suspicious cases, yet but one out of 52 was positive.

In discussing the treatment I wish to make it clear that high blood pressure per se was not treated, but it was considered as a leading symptom, just as fever is in certain diseases.

In those cases whose etiology was a nephritis, and in the patients who had developed marked interstitial changes in the kidney, due either to increased pressure or the things that produce it, the importance of sustaining pressure was realized and measures were used accordingly.

It is useless and even dangerous, to try to reduce a pressure of 200 when the radials are beaded and tortuous, the urine contains albumin and casts, and when there is a greater night than day output, with a low fixed specific gravity. In a condition of this kind the treatment should be aimed at good elimination and a support of the heart muscle. Pressure is thus sustained.

It is in the nervous group, when gotten early, that real results may be secured. The treatment must be based upon the removal of the causes. Apical abscesses must be removed; free bowel drainage must be instituted and maintained; all points of infection, whether from appendix, tubes, gall bladder or tonsils, must be removed. A complete rest cure, and if necessary, a re-education of the patient's nervous system from a nervous to a more phlegmatic temperament, must be undertaken. With this group bromides are the supreme vaso-dilators, and one will find a lowering of blood pressure in just the proportion that nervous relaxation is obtained. Whether this medicine works by lessening nerve stimuli or sedating adrenal activity, or in neither of these ways, I do not know, but when combined with rest it works.

An observation of the use of thyroid extract has been very interesting. Repeatedly there have been pressures which, from the amount of cardiac hypertrophy and radial changes, one would think should be 150 systolic and 90 diastolic, but would persist around 170 and 100, which, upon the exhibition of five grains of fresh gland daily, would rather quickly subside to a safer level.

In connection with this we might recall that Sajous claims thyroid extract neutralizes adrenalin secretion.

The most happy results are obtained with women in the menopause period. Almost constant complaints with these patients are general nervousness and hot flashes. It is seldom that bromides, rest, and an empirical mixture of thyroid, ovarian and corpus luteum extracts will not only relieve the hot flashes and nervousness, but cause the blood pressure to drop to the region indicated by the amount of vascular sclerosis and cardiac hypertrophy. My observation has been that blood pressure drops as hot flashes disappear.

A case in point was a woman of fifty years who had had the best medical attention a good-sized California city afforded. She had been told she had a high blood pressure, and that all she could do was to lead a quiet life, avoiding all stress and excitement. Her pressure was 220

systolic and 120 diastolic; hot flashes were extremely annoying; she was generally nervous; a very poor sleeper; had been constipated for several years, and had three apical abscesses. Her last show had been several months back. The radials were palpable; her heart had increased 10 to 15 per cent. in size; but there were no signs of kidney interstitial changes. Three months of rest, with the judicious use of bromides, internal secretory products, removal of the diseased roots, with diet to regulate the bowel drainage, served to reduce pressure to the region of 155 systolic and 85 diastolic, at which point it has remained for nine months under a reasonably active life.

In conclusion I might add the following lessons and impressions received during this study.

Nephritis does not play so important a part in hypertension as was formerly believed.

There is a large group having increased blood pressures who can be cured if gotten early, and greatly relieved if gotten later. All possible causes must be carefully searched out and radically treated, e. g., apical abscesses, chronic tonsillitis, chronic constipation, gall bladder or appendix inflammations, all pelvic and prostate infections, as well as the proper treatment of thyroid diseases. In addition, nervous habits must be changed, which in itself may mean the complete re-education of the patient. Too much emphasis cannot be placed upon insisting that a proper amount of rest and sleep be had.

The great frequency of increased pressure at the time of menopause. Every woman should have her blood pressure frequently taken during "the change," especially if hot flashes and nervousness are present. The marked relief of these symptoms by the use of bromides and internal secretory extracts, has been most gratifying. And finally I wish to emphasize the importance of sustaining blood pressure to the point indicated by the amount of kidney involvement.

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PARALYSIS OF THE ESOPHAGUS.*

By H. Y. McNAUGHT, M. D., San Francisco.

Paralysis of the esophagus is a comparatively rare condition. In effect it is a stenosis, as the esophagus acts solely by segmentary stimulation. Gravity plays no part in the passage of a bolus to the stomach. This is shown in the ability of the individual to swallow quite as well when inverted. When however a motor paralysis exists no solids or liquids can pass to the stomach. Paralysis of other muscles of deglutition, such as the inferior constrictor, and the palatal muscles is frequently associated with esophageal paralysis.

Jackson classifies the paralysis of the esophagus as follows:

- (1) Toxic type: such as diphtheritic paralysis.
- (2) Purely functional: as in hysteria.
- (3) Peripheral paralysis: as in neuritis.
- (4) Central paralysis: usually from bulbar lesion

as in glosso-labio-pharyngeal paralysis. The latter condition may be luetic. Jackson states that neuritis may also be luetic in origin but this is incorrect.

The differential diagnosis as between esophageal paralysis and other forms of stenosis is comparatively easy.

(1) General physical history of the patient: as presence of lues, etc.

(2) History of onset: No history of possible foreign body obstruction. Usually sudden onset: No pain on attempts to swallow or in intervals.

(3) Examination of the patient by both indirect and direct methods. By indirect examination with the laryngoscopic mirror the pyriform fossae are seen to be full of saliva (Jackson's sign for stenosis). In the absence of sensory paralysis this results in spasmodic coughing on attempted swallowing on account of overflow into the larynx.

By direct examination with the esophagoscope, there is an absence of resistance to a full sized instrument at the physiological constrictions, and chiefly at the crico-pharyngeus.

There may be a sensory as well as a motor paralysis present. If sensation is absent instrumentation may be done without exciting any reflex cough or gagging. Hysterical paralysis can be excluded if we have an absence of the normal contraction at the crico-pharyngeus. A cause of esophageal paralysis not mentioned specifically in Jackson's classification is due to occlusion of the posterior inferior cerebellar artery. While a comparatively rare condition, some thirty cases have been reported by various writers, the syndrome is so definite and one might say almost dramatic, that we should readily recognize it once we know the picture. It may be permitted at this time to review the anatomy of the parts involved.

The posterior inferior cerebellar artery is usually described as the largest branch of the vertebral artery, and in its course as passing obliquely backward around the medulla oblongata, at first between the roots of the hypoglossal nerve then between the roots of the accessory and vagus nerves, to end on the inferior surface of the cerebellum.

It has been shown recently that there is considerable variability in the course of the artery; that in many cases, instead of passing directly backward after its origin from the vertebral, it forms a distinct loop the convexity of which is towards the pons. An absence of the artery on the right side has frequently been noted.

The ascending limb of the loop usually passes upward in the posteriolateral sulcus, and in this position supplies small terminal branches to the medulla oblongata. Occlusion of the post. inf. cerebellar artery produces a definite clinical syndrome, in spite of the variability in the course of the artery, and in the number of branches it supplies to the medulla oblongata. Various investigators have shown that the lesion in the medulla extends laterally from the restiform body to the inferior olive and vertically from where the restiform body passes into the cerebellum to about the middle of the hypoglossal nucleus. The structures usually involved are the descending root of the fifth nerve, the nucleus ambiguus, the glosso-pharyn-

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geal and vagus nuclei and the ventral and dorsal spinocerebellar tracts.

The symptom complex produced by the occlusion of the post. inf. cerebellar artery is as follows: Sudden onset with tendency to fall to the affected side; no loss of consciousness; difficulty with swallowing and occasionally with phonation; loss of appreciation of pain, heat and cold over part or the whole trigeminal area on one side of the face (usually the side of the lesion) and a corresponding loss of pain and temperature sense over the opposite side of the body from the face down; touch tactile discrimination, deep pressure and muscular sense are intact; paralysis of the sympathetic on the side of the lesion, causing retraction of the eyeball, contraction of the pupil and drooping of the eyelid; ataxia of the arm and leg, usually on the side of the lesion. In the course of from three to six months practically all symptoms disappear, other than the sensory changes which usually are permanent.

Without going into detail the symptoms may be said to be caused as follows: The sudden dizziness and instability in standing or sitting can be attributed to disturbance of Deiter's nucleus and the neighboring fibres.

The ataxia of the arm or occasionally the hemi-ataxia, is probably due to interference with the dorsal spinocerebellar tract.

The loss of pain and temperature sense over the trigeminal area, usually on the side of the lesion results from the destruction of the descending or sensory root of the fifth nerve. The presence of touch and pressure sensation in the disturbed area of the face can be explained as suggested by Woods, by the probability that these sensations after reaching the Gasserian ganglion, enter the sensory root and go directly into the chief trigeminal nucleus, and thus escape indestruction of the descending root.

The involvement of only the first and second branches of the trigeminus, has been attributed to the fact that the first branch of the nerve descends lowest in the medulla oblongata, the second branch next lowest, and the third branch highest. A lesion involving only the lower part of the medulla would implicate only the first and second branches of the nerve.

The loss of pain and temperature sensation on the side opposite the lesion is due to involvement of the fibres which carry sensation of pain, heat and cold, these fibres having crossed shortly after entrance to the posterior horns. The area of intact sensation between the face and the disturbed area on the body, when such exists shows that only a part of these fibres are involved.

The retraction of the eyeball, drooping of the lid and contraction of the pupil usually on the side of the lesion show that the sympathetic fibres entering the lower part of the cervical cord, do not cross over until they reach the upper part of the medulla.

Case 1. The case which came under my observation, first was as follows: A. B., Male age 50. Occupation night watchman. Family history, neg. Present illness: August 2nd, 1918 went to dinner feeling slightly chilly but otherwise normal. Ate a hearty meal consisting mostly of fresh mackerel;

no canned stuff. About eleven P. M. was awakened by a feeling of nausea. He made his way to the toilet with great difficulty owing to intense dizziness and inability to stand without holding on to things. For about an hour he vomited and had diarrhetic movements of the bowels. On attempting to eat next morning he found that he was unable to swallow even water as attempts to do so were followed by coughing spasms. The patient was seen first in my office on August 5th at which time examination showed the following condition: his speech showed a rhinolalia aperta, which proved to be due to a paralysis of the soft palate on the right side. There was a slight hoarseness which was partially due to the fact that there was a paresis of the right cord, not complete. Some of the hoarseness I attributed to the laryngeal irritation due to the frequent cough from overflow of mucus.

Tongue normal (hypoglossal usually escapes), slight R. facial paresis, R. knee jerks absent. The pyriform fossae were seen to be full of saliva. He was sent to the hospital where I passed the esophagoscope the same day. A large sized tube was passed without any resistance at the introitus. No foreign body was seen, the only departure from a normal appearance being an edematous appearance near the introitus. There was a complete absence of ability to swallow. No sensory paralysis present. Deaf in L. ear, some years duration. I asked Dr. Walter Schaller to see the patient with the idea of ascertaining the cause of the paralysis. His report follows: Patient appears about 50 years of age. Has worked in lead formerly. Arcus senilis present in cornea and radials are palpable. Pupils irregular in contour, also unequal. L. being larger than R. React fairly promptly to light. Deaf in L. ear, said to antedate accident. R. corneal anaesthesia.

Sensibility: There are striking changes to be noted in this regard viz: In L. extremities and trunk anaesthesia to pain and temperature sense. Touch conserved. Hypo-anesthesia to pain temp. and touch in ophthalmic and supr. maxillary branches of the 5th on the R. side.

Co-ordination: No noteworthy ataxia, finger to nose and heel to knee tests. Neuro muscular: No atrophies.

Diag: Occlusion of the R. posterior inf. cerebellar artery, on probable arterio-sclerotic basis.

August 7th the rhinolalia aperta much more marked. A spinal fluid examination was done the report being negative for lues. In spite of this report the patient was put on Pot. iodide internally, and mercury rubs. He was fed rectally for two days and then by stomach tube during his stay in the hospital. August 14th swallowed a small glass of milk. August 23rd left the hospital at which time he was able to swallow softened bread and eggs. At the present time he can eat almost any well chewed food, but still presents the rhinolalia aperta and the sensory disturbance described.

Tests of the oculo-vestibular tract were not made at the time of his acute illness, but those made later showed no abnormality.

Case 2: R. W. E. salesman aet. 55, American, was seen by a competent general practitioner in December 1918 and sent by him to the San Francisco Hospital, with a diagnosis of "stenosis of the esophagus." He was examined by another physician there on the twentieth of December and the following condition was reported. Complaint: Inability to swallow, eight days duration. Family History: Father died at 80, senility. Mother died at 70, senility. Wife healthy, no miscarriages. Past History: Used to be a fairly heavy drinker up to 20 years ago. Occasional sore throats. Children's diseases. No skin rashes. Has been tired out and worried some time.

Present illness: Two weeks ago began to have sharp shooting pains over L. eye, temporal, and occipital regions, radiating L. side of neck to chest,

and worse at night. Eight days ago when stooping over felt "as if something had snapped in his head," was dizzy and felt a choking sensation and numbness in R. arm and leg. Was able to walk about after a while and tried to eat but could not swallow. Since then has been unable to eat and even to swallow liquids. Pains in head have continued, but not so marked. For past week has been quite dizzy when making sudden movements. No incontinence of bladder or rectum. Eleven days ago had blurred vision in R. eye, with dark spots before eye and pain. No special difficulty in speaking, but it is somewhat of an effort. Smell and taste unchanged. No locomotor disturbances. Unable to distinguish heat or cold over R. side and extremities. Pupils unequal, the left being smaller. R. normal hippus. Nose and ears negative. Slight droop left corner of mouth, more noticeable when he smiles. Mouth: slight pyorrhea, much dental work. Tongue coated and protrudes to Right of mid-line. Pharynx: Mucous membrane normal, Gag reflex diminished. Neck: Some soreness of muscles on L. Side. Chest expansion good. Heart normal. Lungs normal. Abdomen and back normal. Sensation to pin gone over area supplied by the two upper branches of the trigeminal. Pin sensation over R. foot and lower right leg diminished. Partial ptosis of left eye. Left corneal anaesthesia. Voice has changed since present illness and has become nasal in character.

The only additional data that subsequent examination revealed was that his rhinolalia aperta was caused by a paresis of the left soft palate, and that there was a partial paralysis of the left vocal cord.

Examination of the internal ears showed normal reactions to all tests. Examination with the esophagoscope showed a perfectly patent esophagus, only a slight thickening about the introitus being seen. The instrumentation was done without anaesthesia.

When last seen about a month ago he was able to swallow liquids in small quantities, but could not accomplish this if he swallowed too hastily. His sensory findings were as in the first examination. Paresis of soft palate much improved with consequent improvement of speech.

In conclusion it might be said that when confronted by a case of sudden inability to swallow, the syndrome of occlusion of the post. inf. Cerebellar artery, should always be kept in mind.

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REPORT OF A CASE OF THE OPERATION OF BOTTINI FOR PROSTATIC OBSTRUCTION, AFTER TWENTY YEARS,

and

REPORT OF A CASE OF THE OPERATION OF GARRITY FOR CANCER OF THE PROSTATE, AFTER SIX MONTHS.*

By GRANVILLE MacGOWAN, M. D., Los Angeles.

CASE I.

In the autumn of 1898, J. R., a physician living in Mifflinsburg, Pa., and temporarily visiting in California, after suffering for about a year at intervals with symptoms of prostatism, which for several months had required the leading of a catheter life, appeared for consultation, stating that he had read an article in which I had reported the successful use of the Bottini instrument in the relief of prostatic obstruction, and that he desired

that I should carry out this treatment in his case. He was suffering, at the time, from acute cystitis, and the passage of a catheter was very difficult and very painful. An inlying catheter could not be borne.

The case did not seem suitable for this operation and I advised a prostatectomy, but he insisted on the Bottini or nothing.

Three incisions were made with the cautery on the floor of the bladder outlet. He had a very stormy time for about two weeks, with high temperature, great pain, some delirium, but in the end, the operation afforded him all the result which he desired.

The groove left permanently was sufficient to enable him to empty his bladder. The frequency decreased as the years went by. He became intellectually and physically active again. About 1906 he married. He had retained his sexual powers, up to my last interview with him, which was last December. He has returned to California every winter, and I have been afforded the opportunity to cystoscope him each year, and catheterize him; there is no residual urine, but the urine has never been clear.

The frequency is not great, four or five times during the day and twice at night. The bladder is still trabeculated. The lateral lobes of the prostate can be seen projecting into the bladder, the left being the larger, but they do not impinge upon the groove made by the Bottini.

At the time of the operation, he was fifty-eight years old; he is now seventy-nine.

In the last five years of the nineteenth century, I was using the Bottini rather frequently, having operated then altogether about fifty cases. We had not yet worked out the technique of safe prostatectomy which has been established since, as the result of the effort of many of we older men, over a period of a quarter of a century, so that the Bottini operation with all its dangers appealed to me then, as it did to other men, like Hugh Young and Cabot, as well worthy of regard.

A few years later, owing to an unfortunate accident, I abandoned its use altogether. This case stands as an exemplar of the fact that what the Italian surgeon who originated the cautery operation claimed for it, is true, which is that the operation itself could be used for the establishment of bladder drainage, that would successfully allow of the emptying of the bladder in cases of hypertrophied prostates without removal of the encroaching growths.

CASE II.

In my service at the Santa Fe Railroad Hospital in Los Angeles, F. C. B., engineer, aged 62, referred to me by reason of his inability to urinate. Symptoms of prostatism developed quite suddenly early in October, 1917; before that time, he had never had any difficulty in urinating and no history of pain, but in the interval the symptoms of prostatism had increased until when I first saw him, retention was complete.

Rectal examination showed a very large prostate, indurated, immovable on the right side and very slightly movable on the left, apparently adherent to

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the muscles of the rectum and extending out along and involving the right seminal vesicle.

Cystoscopic examination showed a bladder not trabeculated and not inflamed; the outlet was irregular in all zones, but presented no distinct bulges into the bladder.

Diagnosis—Cancer of the prostate.

An ordinary case would have been given a catheter and sent home, but this man was not teachable and there was no one in his home hamlet to catheterize him. He preferred to be operated.

The case seemed suitable for the operation, which had been devised by Dr. John Garrity for the total ablation of the prostate, in cancer, which he was kind enough to explain to me at a visit with him last June. This operation is a perineal one and differs in several features from operations devised by Dr. Hugh Young and the one devised by me, and is an improvement on both of them.

On the 3d of August I submitted him to this operation. The prostate, its capsule and both seminal vesicles were removed. The bladder neck was involved for almost its entire circumference. The cancer was removed from this with cutting rongeurs. It took a long time. The work had to be patiently done; when we ceased everything that was indurated or that felt or looked cancerous had been removed excepting a small nodule far up on the right side underneath the lateral bladder wall, which could only be felt; it could not be brought down. Two tubes were inserted, one through the urethra and the other through the perineum, coming out on the left side. On the 9th of August, the stitches were removed and both tubes taken away from the bladder; on the 16th of August, he commenced to pass urine by the urethra; on the 19th of September, he was passing all of his urine through the urethra and has continued doing so ever since.

He was examined on the 10th of September with the cystoscope, which demonstrated a clear bladder wall, and a very fair bladder neck, though there was some edema on the right side of the bladder, about the neighborhood where I did not reach all of the growth. On the 3d of January of this year, he was in excellent condition; his bladder showed a little more edema on the right side; he was holding his urine from three to four hours with a bladder capacity of 250 cm., and passing it in an excellent stream.

He was examined again on the 10th of March; at that time I could notice, with the finger in the rectum, a recurrent growth at the site of the edema in the bladder, but he stated that his bladder condition was entirely comfortable. He complained of pain over the left hypochondrium and of some cough. I made a diagnosis of cancer of the lung and possible involvement of the liver; he was referred to the medical department and Dr. Sugarman made the following report to me within the last forty-eight hours:

Chest findings: Apex at the fourth interspace, superficial dullness (cardiac) reveals heart dislocated up and left; no valvular lesions. Marked dullness over lower sternum to left lower chest. Respiratory excursion left diaphragm limited;

massive dullness basal left with marked reduction of vesicular breath sounds. Thoracentesis shows sero sanguinous effusion. X-ray, chest dense shadow in inferior mediastinum sharply defined nodules (size of walnut), scattered through left lung.

Diagnosis: Mediastinal tumor of malignant origin.

I must say, with regard to such operations, that after having performed a number of successful resections of the prostate, meaning by that, that the individuals have retained their urine, have urinated freely and emptied the bladder for at least a time, as I am doubtful as to whether they are justified in the premises. Nearly always metastasis has already taken place before the process in the prostate has so far advanced that it can be almost absolutely determined by the tactile sense alone.

While the disease may be locally cured, the surgery performed, exhausting, long, tedious as it is, really does not, in the end, pay, because it does not lengthen the individual's life nor does it greatly increase his comfort, and, as a rule, I am inclined to advise against such operations.

Dr. Molony of San Francisco and Dr. Lyons of Wichita, with several Texas and California physicians whose names I do not remember, were present at the operation.

THE INTENSIVE TREATMENT OF MENINGOCOCCIC MENINGITIS.*

By DONALD J. FRICK, M. D., Los Angeles.

It is a peculiar fact that in medicine as in life generally we only learn by hard knocks. We do not seem to be able to apply quickly the lessons learned in the treatment of one disease to other diseases which are produced in a similar way, but have dissimilar manifestations. We have been impressed for a number of years by the advisability and necessity of intensive treatment in diphtheria, we have seen numbers of cases of tetanus recover following the employment of the "Rational" method of Ashurst and John, pneumonia Type I has been treated with large amounts of the specific serum with wonderful results, but not until we were placed face to face with the virulent epidemic of meningitis of last winter did we use our knowledge gained in these other diseases and evolve a satisfactory plan of intensive treatment. Report of the Surgeon-General, U. S. Army 1918, shows there were 600 cases with mortality of 26.83% for the last four months of 1917.

The preliminary report of Major Herrick in the Journal of the American Medical Association and his later extended report in the Archives of Internal Medicine advocating the combined intravenous and intraspinal treatment should have awakened every one of us to the necessity of intensive treatment, but from the reports of cases of chronic meningitis, cases needing intraventricular drainage with introduction of serum, cases still being treated with intraspinal injections alone or

*Discussed by Drs. Brem, P. R. Brown, Fulton, Roblee, Oliver, Frick.

with serum intravenously in a half-hearted way, it is evident a wider knowledge of modern treatment is necessary to safeguard the patient with epidemic meningitis. This is my excuse for presenting a discussion of the treatment of the last twenty cases of meningitis at Camp Beauregard.

Capt. Landry and Capt. Hamley have reported in detail the first 126 cases and from their article statistics for comparison will be taken. These statistics are briefly given here, so that we may show the reason for the plan that was worked out and followed in this last small epidemic of the disease.

From November 10, 1917, to June 1, 1918, there were 126 cases with a mortality of 48.26%.

1. The first 83 cases were treated by the intraspinal method alone, with a mortality of 54.2%.

2. Nine cases were given intraspinal treatment with serum intravenously late, with a mortality of 55.5%.

3. Thirty-four cases were treated with the combined intravenous and intraspinal method, with a mortality of 32.3%.

These last 34 cases were treated with 60 cc. of serum every 24 hours for three doses; more was given if the blood still showed a positive culture. Thirty to forty cc. of serum were injected intraspinally every 12 hours until the temperature was normal. With this plan results were not satisfactory, the death rate was too high, two cases developed a positive blood culture late in the disease, one on the thirty-sixth day of the disease after having been up and around the ward, the other on the sixteenth day following an intercurrent Type I pneumonia which had responded to the Type I serum. And there were nine or ten cases who developed a post-meningitic neurosis which made them invalids for nine or ten months after their disease was over.

It is probably conceded by every one that the disease is a blood stream infection with local manifestations in the cerebro-spinal system. This is proved by the recovery of the meningococcus in the blood stream before there are any changes in the cerebro-spinal fluid, and very few signs of meningeal involvement. The blood stream may stay infected for variable periods, just as it does in pneumonia. And as we find in different epidemics of pneumonia, larger or smaller percentages of cases with a septicemia, so do we find varying percentages of cases of blood stream infection in different epidemics of meningitis. The argument advanced that, because petechia is an infrequent incident in some epidemics, and blood cultures positive in only a small number of cases, the disease is not primarily a septicemia, is no more tenable than to deny in the case of pneumonia or typhoid the presence of a primary septicemia because there is a variable percentage of cultural findings. This variability is well illustrated by our statistics on pneumonia at Camp Beauregard. During the period June 1, 1918, to September 1, 1918, blood cultures were made on all cases of pneumonia, percentage positive 20.6%. During the epidemic of influenza 108 cases of pneumonia had blood cultures made, 50% were positive. As it is a blood stream infection, and as we cannot judge how long

the blood stream will stay infected and what organs may be affected, it is necessary to use serum intravenously continuously and intensively.

Because we do not believe the choroid plexus is pervious to serum, and because the serum must be brought in direct contact with the meningococcus, it is necessary to give serum intraspinally early and in sufficient amounts to control and destroy all bacteria in the cerebro-spinal fluid.

Our first plan had not proved effective and we believed it was a partial failure because we had not used enough serum in the first few days of the disease. We knew from experience in pneumonia that serum was not dangerous if properly used, we therefore outlined the following plan:

All suspicious cases of meningitis to be immediately punctured, if the spinal fluid is cloudy or the symptoms seem definite 30 to 60 cc. of Anti-Meningococcus serum is given.

One cc. of serum is injected under the skin at the same time for the purpose of desensitization.

One and one-half to two hours later, if the meningococcus is found in the spinal fluid, 100 cc. of serum is given intravenously. The first 15 cc. given at the rate of 1 cc. per minute. A certain percentage of cases can only take a portion of this dose on account of serum shock.

The intraspinal injections are to be repeated every eight hours for six doses. After this the interval to be decided upon according to the condition of the patient. Intravenous injections of 100 cc. to be given every 12 hours for three or four doses, every 24 for two doses if the case still has fever, and one or two doses at 48 and 72-hour intervals if thought necessary.

A brief analysis of the 20 cases seen in October, November and December is here given:

The cases here reported came following the epidemic of influenza in September and October. As the epidemic of the year before began in November, and as meningitis was endemic in Louisiana and had become epidemic during several years from 1904 to 1917, we were constantly on the watch for cases and were not taken by surprise when they came.

Sixteen were white and four were colored. All had been in the service over five weeks and therefore probably contracted the disease in the army.

The first case came in on the 9th of October, four were admitted on the 12th, one on the 14th and four on the 16th. The rest being scattered through November and December.

CONDITION ON ADMISSION.

Ten were unconscious, three were stuporous and semi-conscious, seven were conscious.

INITIAL SYMPTOMS.

The mode of onset in 18 was obtainable. Nine had chills; 16 had severe headaches, 7 of these headaches being frontal; 17 had severe backache; only one had photophobia; 5 had nausea and vomiting; 4 had cough, coryza and generalized aching.

OBJECTIVE SYMPTOMS.

The signs on admission were as follows: Three had contracted pupils; 4 had dilated pupils; 13 normal pupils. In 10 cases the pupils reacted to light; 5 no test made; 3 no reaction; 2 had had mor-

phia before admission; 19 had rigidity of the neck; the other case developed it two hours after admission. Kernig's sign was present in all cases. Four cases had exaggerated reflexes. Babinski's sign in 6 cases. Retraction of head, 16 cases. Petechia was present in 13 cases, 7 times on feet and legs, 3 times on the shoulders, 3 times over the whole body.

SPINAL FLUID.

Spinal puncture was done immediately on admission. Amount of fluid removed ranged from 20 to 65 cc. Nineteen of the fluids were cloudy, 1 was bloody. Pressure was increased in every case (capillary tubing was not obtainable, so no measurement of pressure could be made). Bacteria were found in 15 cases on first examination, in four cases on the second examination. Polymorphonuclear cells made up from 76 to 99% of cells present on the first examination.

BLOOD CULTURES.

Six cases had positive blood cultures; 12 cases had negative blood cultures; 2 cases had no report made on them on account of contamination.

SERUM TREATMENT.

All patients were desensitized and given serum intravenously and intraspinally. Serum given intravenously was usually diluted with equal parts of normal saline solution.

Seventeen recovered cases—4 had 3 intravenous injections averaging 250 cc. for each patient; 10 had 4 intravenous injections averaging 405 cc. for each patient; 1 had 6 intravenous injections receiving 490 cc.; 1 received 7 injections totaling 615 cc.; 1 received 8 injections or 810 cc. Average number of doses=4.3, average amount of serum=406 cc. Three fatal cases: One received 7 doses totaling 685 cc.; 1 received 4 doses totaling 400 cc.; 1 received 1 dose of 70 cc. Average number of doses 4, average amount of serum 385 cc.

Intraspinal injections were given in all cases after drainage of the cerebro-spinal system.

Seventeen recovered cases received from 11 to 39 doses. The minimum amount of serum being 210 cc.; the maximum 1020 cc. Average number of doses 19.8, average amount of serum 492 cc.

Three fatal cases: 1 received 1 injection of 45 cc.; 1 received 7 injections of 170 cc.; 1 received 25 injections of 622 cc. Average number of doses 11, average amount of serum 279 cc. The minimum amount of serum given to a recovered patient was 435 cc., the maximum amount 1635 cc.

RESULTS.

Seventeen cases recovered, three cases died—a mortality of 15%.

COMPLICATIONS IN RECOVERED CASES.

One broncho-pneumonia—cured.

One bilateral pyelitis—cured.

One arthritis—serous effusion into knee joint, aspiration with injection of 10 cc. of Anti-Meningococcus serum with recovery.

One arthritis right elbow—recovery.

THREE FATAL CASES.

First case lived 48 hours after coming to hos-

pital; second case lived five hours after coming to hospital, was sent in unconscious having been found on the ground in this condition. No history was obtainable and length of time of symptoms before removal to hospital not known. Third case was in hospital 19 days, but was complicated by syphilis, as shown by a history of chancre 14 months before and a double plus Wassermann.

TIME IN HOSPITAL.

Seventeen recovered cases averaged 57 $\frac{1}{2}$ days in the hospital. One case was discharged at end of 31 days; 2 cases remained in hospital 90 days.

EXERCISES BEFORE DISCHARGE.

All cases before discharge were given setting-up exercises and made to do a five-mile hike without fatigue. This criterion was decided upon as we had found in the former epidemic that we had a great number of returned cases with a post-meningitic neurosis. All having about the same group of symptoms—pain in back, inability to march or drill, inability to bend forward, and immediate fatigue with any exertion. Twenty of these former cases had to be sent to a special hospital for reconstruction. This extra period of training necessarily prolonged the stay in hospital, but was well worth while and should be a part of the treatment of every case of meningitis.

SUMMARY.

1. Twenty cases of meningitis are here reported with a mortality of 15%.
2. Intensive intravenous and intraspinal treatment was used in all cases reported.
3. The 17 cases that recovered were well on discharge and able to do duty.
4. All the cases were of moderate severity. Fifty-five per cent. had a petechial eruption; 30% had a positive blood culture and 50% were unconscious on admission.

CONCLUSIONS.

1. All patients with positive signs and symptoms of meningococcic meningitis should be given both intraspinal and intravenous injections of serum.
2. Intraspinial injections of 30 to 50 cc. should be given every eight hours for six doses and then at less frequent intervals as needed.
3. Intravenous injections of 100 cc. after desensitization should be given every 12 hours for three or four doses and then every 24 or 48 hours as indicated by the condition of the patient and by the findings in the blood cultures.
4. Large doses of serum both intravenously and intraspinally at frequent intervals can do no harm, and will lower the mortality, prevent serious complications, and shorten the period of convalescence.
5. The withholding of intravenous serum injections until late in the disease, or giving of small doses at long intervals has no more rational basis than the giving of small doses of 1000 or 1500 units of antitoxin in diphtheria or 20 to 30 cc. of Type I serum in Type I pneumonia at intervals of 24 hours.
6. All of our serious complications, long

drawn out cases, ventricular blocking, and high mortality are probably due to too small doses of serum, given at too long intervals.

Bibliography.

1. Ashurst, A. P. C. and John, R. L.: "The Rational Treatment of Tetanus," *American Journal Medical Sciences*, 1913, cxlv-806—and *ibid.* 1913—cxlvi-77.
2. Herrick, W. W.: "Epidemic of Meningitis at Camp Jackson," *Journal American Medical Association*, 1918, —70-227.
3. Herrick, W. W.: "The Intravenous Serum Treatment of Epidemic Cerebro-Spinal Meningitis," *Archives of Internal Medicine*, 21-541.
4. Landry, Adrian A. and Hamley, William H.: "Epidemic Cerebro-Spinal Meningitis at Camp Beauregard, La.," *American Journal Medical Sciences*, 1919, clvii-210.
5. Flexner, Simon: "Mode of Infection, Means of Prevention, and Specific Treatment of Epidemic Meningitis," Published by the Rockefeller Institute for Medical Research.
6. Gordon, Alfred: "The Chronic Form of Meningococcus Meningitis," *Archives of Internal Medicine*, 23-150.
7. Stone, Major Willard J. and Truitt, Major Ralph C. P.: "A Clinical Study of Meningitis Based on Two Hundred and Fifteen Cases," *Archives of Internal Medicine*, 23-283.

EMPYEMA—TREATED BY DAKIN'S SOLUTION.*

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I have nothing either brilliant or new to add to the many empyema studies recently made. The severity of the disease has differed throughout the many scattered cities, camps and hospitals almost as much as the types of treatments and techniques. So reports and conclusions are just as varied. However, it seems worth while that reports should come from everywhere in order that out of the composite something may be learned.

At Navy Base Hospital No. 3, on the North Sea, we had twenty-eight cases, but they occurred before, during and after the influenza epidemic, representing all the types—I think—and were all treated along the same line. During the epidemic our influenza cases all showed streptococcus haemolyticus, pneumococcus and influenza bacilli; the predominance of one over the others determined early the prognosis, for the haemolytic cases mostly died in from six to twenty-four hours, before empyema developed, whereas the others lived. So in our empyemata we had only four haemolytics with ten pneumococcus and eleven influenza, and three chronics with mixed infections. Only two of these (influenza) cases went to the operating room, and these were the only resections done. The others were too sick to move, and were operated in bed, for we realized early that the cases sent in from the fleet, or who had endured railway journeys all did badly, and in many the cyanosis and prostration was much too great to justify lifting to a cart and hauling to the operating room and back.

One per cent. novocain solution was the anæsthetic used.

The incision was intercostal—three or four inches long, at the lowest level shown by the pictures and other findings—mostly commonly the 8th interspace—post axillary line.

The opening through the pleura was of suffi-

cient size for exploration and to receive a hard rubber tube, a centimeter in diameter, for drainage; also a smaller one alongside it through which the C. D. tube entered. Usually one tube was sufficient by changing the position of the patient. The large drainage tube is important, for the breaking down fibrinous clumps would plug a smaller one.

Irrigation was given every two hours with Dakin's Solution for the first few days, or until the pus and drainage ceased and temperature was normal—when the irrigations between 10 p. m. and 6 a. m. were discontinued. Later these were reduced to twice daily. By this time all tubing was withdrawn, and the irrigations were done through a catheter until we got sterile smears and a reddish tinge appeared from the granulation tissues, when the wound was allowed to close.

No secondary closures were made.

No suction or negative pressure apparatus was used.

The patients were over-fed as much as practicable. They were given no exercise beyond deep breathing, but were got up as early as the wound sealed and given work they were able to do about the wards. We found no difficulty with lung expansion, for the Dakin's Solution dissolves the fibrin, and limiting bands do not exist.

The shortest irrigation period was twelve days and the longest twenty-one days.

We took over our hospital from the British Army, and with it a number of patients too sick for transfer. Among these were three old empyemata. They were of special interest to me, for they were of a type which we had seen in civil life, and had always been so difficult. Also because they were the first chest cases in which I had ever used irrigation of any type.

Case No. 1. J. T. McC. Had been operated upon ten weeks before. The incision and resection of rib had been made posteriorly, and apparently with arm extended, for the angle of the scapula lay in the middle of the wound, making it extremely difficult to keep a tube in. There were copious drainage (while the tube was in)—a mixed infection with a lot of pyo-cyaneous stain in the dressings. His temperature ranged from 100 to 103. Under novocain his wound was enlarged—fibrous bands broken down and a large drainage tube inserted. Irrigation with Dakin's Solution as in acute cases. In eight weeks he was well.

Case No. 2. W. M. J. Similar in many ways; had been operated upon six weeks before. He ran an irregular, high temperature for a time, until we found a pocket and got a tube into it. He was well in seven weeks.

Both of these had been pneumococcus cases.

The third case, J. C. P. Shrapnel in right lung two years previously. He had been operated upon six times—the last being an Estlander. Like the others, he ran irregular and high temperature until his wound was enlarged and bands broken and irrigation started. We had several pocket formations with him, and bad times for a few days, but in four months he was well and went home. I have had a letter from him since my return, telling me how fine he feels. So I believe that he has remained well. An interesting incident in his case was apropos of the C. D. solution in fistulous cases. For weeks the dissolving fibrin had come away in lumps with each irrigation, until one day I was called in a hurry to find him in extreme paroxysmal coughing immediately following his

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irrigation, and he told me he felt and had a taste just as when he was gassed two years ago. And he was right, only instead of the Hun, I had given him the chlorine.

This little paper is deliberately superficial—its only object being to emphasize the importance (1) of disturbing these patients as little as possible, (2) of a very simple technique, (3) of the success of irrigation, even in old mixed infection cases, (4) of feeding as much as possible, (5) of getting them up as soon as the wounds are sealed, and (6) of not losing any patients.

THE PATHOGENESIS OF PACHYMENINGITIS DUE TO NASAL OPERATIONS, WITH REPORT OF CASES.*

By ANDREW B. WESSELS, M. D., San Diego.

That there are relatively infrequent deaths following intranasal operations is shown by a review of the literature. Considering the number of nasal operations done, one wonders why meningitis as a complication is so seldom reported by the surgeon. In reporting my own case and putting on record three other cases operated on by other surgeons, but which have not been reported, I do so with the idea of getting closer to the pathology of the ethmoid labyrinth. It seems to me not enough attention has been paid to radiography in sinus work. Many of the deaths reported in the literature might have been obviated had the surgeon had a radiograph before attempting intranasal instrumentation. The possibility of brain involvement resulting by continuity, though bones and dura mater are intact, has been demonstrated (Hajek). In operations on the middle turbinate, infection can readily spread by way of the porous, poorly resisting ethmoid labyrinth. Removing polypi may open up diseased periosteum and bone with possible extension into new areas for absorption into regions always dangerous. Similarly, operations intranasally on frontal sinus, the bone structure of which may be atrophied through extension, might infect the meninges. The transmission of microorganisms through the blood stream from the nasal cavities has been established (Hajek and Flexner). There is a direct relation between the perimeningeal lymph-spaces and the lymphatics and the nasal mucosa by way of the cribriform plate of the ethmoid. Downward prolongations of the subarachnoid space, which forms a net work around the olfactory filaments as they pass through, other prolongations also pass through quite independently of the olfactory nerves. By means of these prolongations direct communication exists between the subarachnoid space and the lymphatics of the upper portion of the nose (Andre). When the condition of the nose is considered, in disease of the sinuses, with the bones sclerotic, porous, or atrophic, is it a wonder that oftentimes the slightest instrumentation will result in meningeal involvement through fracture? Unfortunately, all deaths from meningitis following nasal operations do not go to autopsy, hence the location of most

frequent perforation and fracture is not available.

In analyzing the available literature on intranasal operative deaths, from meningeal complication, it seems that the operations directly on the ethmoid labyrinth are responsible for the largest number, perhaps because it is most frequently operated upon. The radical external frontal sinus operation is not considered here, although intranasal frontal sinus instrumentation is responsible for quite a number of deaths, due to fracture of the inner wall of the sinus or extension through the bone or perforation through the cribriform when no frontal sinus exists. The apparently simple operation for the removal of portions of the middle turbinate appears to be responsible for a large number of deaths either by direct fracture through the ethmoid and cribriform plate or by extension of infection through blood stream and lymphatics. The submucous operation on the nasal septum, which ordinarily is simple and would appear not at all dangerous, is responsible for its quota of deaths, this by hematogenous and lymphogenous extension.

Any operation of the nose, no matter how slight it has been, may be fatal through complication, by producing a recrudescence of an old latent meningitis or a meningitis by infection through an old perforation or dehiscence in either the ethmoid labyrinth, cribriform plate, or internal wall of the frontal sinus. The infection, once it reaches the cranial cavity, whether through the cribriform or frontal sinus, is usually found in the frontal lobe in the basal portion or anterior or median region (Freundenthal).

I. The writer saw in consultation a patient who, as the result of a nasal operation, died of a meningitis. The anterior tip of the middle turbinate had been removed, the bones were sclerotic, and there was a large amount of pus in both the frontal and ethmoid sinuses. The patient went into shock immediately after the operation and died on the fourth day from a pneumococcic extension.

II. A skilled operator removed the middle turbinate, which was hypertrophied and causing an obstruction. It was followed by a severe hemorrhage, tamponage was resorted to to check the bleeding. The patient died on the fifth day from a meningeal involvement. Streptococci were found in the spinal fluid.

III. The third case of meningitis following the removal of the middle turbinate was in the office of a surgeon. Patient developed meningitis and died on the seventh day. There were no post-mortems on these cases.

The supposition is that in these three cases, there was a fracture into the cribriform plate through the ethmoid labyrinth after simple operations on the middle turbinate. Apparently the patients were in good health prior to operation.

IV. A second cruise man of about thirty-two years of age was referred to me because he was "dopey." He seemed to be unable to hear commands given by his drill master, and was very slow in executing any order. He complained of moderate headaches extending over a period of

*Read before the Forty-eighth Annual Meeting of the Medical Society, State of California, Santa Barbara, April, 1919.

years. On examination, the nose was found to be filled with polypi and it was almost impossible for him to breathe. With the idea of giving him breathing space, the polypi only were snared out. A radiograph taken previously showed right frontal sinus and both ethmoid labyrinths opaque. The idea was at a later date to clean out the ethmoid and drain the frontal sinus. Tamponage was not needed. On the fourth day, Dr. Little, neurologist of the Naval Training Camp, San Diego, saw the case and diagnosed a Pachymeningitis. The patient died on the sixth day.

Autopsy report by Dr. H. A. Thompson.

Autopsy made six hours after death. On opening skull, general softening of the bones was noted, in areas this was so marked that the scalpel could cut through. The dura was adherent to bone and very much thickened and general diffuse Pachymeningitis was found. The blood vessels at the base showed general sclerosis. A rupture of the first branch of anterior cerebral artery on right side was present. There was a clot 2-5/10 cm. in diameter in center of the right frontal lobe, the tissue surrounding this involving practically the entire right frontal lobe, which was softened and necrotic. The right lateral ventricle was involved and showed a small clot. There was a small oblique fracture through the cribriform plate of the ethmoid on the right side, the bone was very thin and spongy, and the polypi could be discerned in the ethmoid labyrinth through the cribriform plate.

Cause of death. Pachymeningitis following fracture of skull. The condition of the bone existed prior to the operation and rendered the tissue much more susceptible to trauma. Blood Wassermann showed four (+) plus positive.

San Francisco Shows Lowest Infant Mortality

SAN FRANCISCO DEPARTMENT OF HEALTH.

The following statement prepared by Health Officer William C. Hassler on births for the fiscal year 1918-1919 and deaths of infants during the same period is presented as being worthy of particular mention owing to the interest that has been displayed within recent times concerning Baby Welfare.

Births registered.

1918	Males	Females	Totals
July	345	339	684
August	415	383	798
September	407	378	785
October	418	366	784
November	354	346	700
December	371	338	709
1919			
January	359	310	669
February	330	308	638
March	378	361	739
April	328	334	662
May	370	388	758
June	398	328	726
	4473	4179	8652

The above total is exclusive of 356 stillbirths divided as follows:

Males 211, females 145, an excess of 66 boys over girls.

In the living births the boys exceeded the girls by 264 or 3 per cent. of the total number registered.

The introductory table shows a total of 8652 births recorded—and of this number 725 were born of parents residing outside of San Francisco and this group should rightfully be excluded from the gross total, thus leaving a net total of 7927 to be credited to our city as the natural increment to the population.

The recordation of births as shown by the figures for the fiscal year 1918-19, indicates a marked advance over previous years, the increase over the last five years being from 10 to 15 per cent. Our birth rate per 1000 of population for the year ending June 30, 1919, based on a census of 500,000 inhabitants, gives us 17.3 as compared to the previous three years of 13.5 to 15 per cent. per 1000 (Note—the 10 to 15 per cent. increase first mentioned refers to increase in **number**—the rates per 1000 are calculated on **population percentage**).

It can therefore be safely asserted that San Francisco is at least 98 per cent. perfect insofar as birth registration is concerned.

Physicians—Register Your Births Promptly.

The gross total distributed by color or race of parents gives the following figures: White 8121, Black 38, Chinese 196, Japanese 297.

By nativities, parents registered as straight U. S. born 4320, or 50 per cent. of the entire total; Great Britain 126, Ireland 300, Germany 72, France 77, Italy 747, Scandinavia 157.

2279 births were registered under "mixed parentage" comprising unions representing every country on the globe—589 of these or 25 per cent. being "United States and other"—indicating either father or mother being born in this country. Exclusive of the last named total a tabulation was kept of parentage involving unions between the United States and prominent foreign countries; and these tables show: U. S.-Ireland, 167; U. S.-Germany, 159; U. S.-Italy, 248.

It is interesting to note that under straight Italian and U. S. -Italian parentage 995 births were recorded or 11½ per cent. of the entire total—and the Japanese run up to 297, being far in advance of many of the "straight-parentage" countries, thus with a population of 5000 (estimated) the Japanese standing alone shows a birth rate of 5 per cent. per 1000.

The U. S. census figures do not attempt to segregate the population by nativities, hence it is not possible to figure out the exact percentage of Italian births to their population, but their rate of 11½ per cent. of the entire birth registration gives a fair index as to the fecundity of this race.

Physicians—Report Communicable Diseases without Delay.

Mortality.

"Infant Mortality" as referred to by the U. S. Census Bureau deals with deaths of children up to the age of one year.

For the fiscal year ending June 30, 1919, San Francisco registered 697 deaths of children in this age period.

The total deaths (adults and children) from all causes totalled 10,852, but of this large number 3322 are charged as victims of the two invasions of influenza in October-November, 1918, January-February, 1919; deducting these from the grand total gives us 7530 deaths as the normal rate. Yet even this is a high figure and considerably above our usual total, as our normal pneumonia death rate was augmented by easily 40 per cent. during the influenza epidemic.

The percentage of deaths of infants to the nor-

mal rate from all causes worked out as 9 1-3 per cent.

During the months covering the influenza outbreak—October, November, December and January—deaths of infants exactly doubled over the normal figure for these months, thus indicating that the invasion had a marked effect on women in pregnancy, "premature births" being of more than common occurrence.

Deaths of children under the age of 1 month increased by 50 per cent. over normal during this period, no doubt as a result of many mothers being rendered unfit to properly care for their offspring during the height of the epidemic.

48 children under the age of one year succumbed to influenza given as a direct cause of death, 65 died of broncho-pneumonia and 25 of lobar pneumonia, many of these last two causes doubtless being complicated with influenza.

170 babies died within 24 hours after birth, 71 lived one week, 118 died between the age of one week and one month.

This makes a total of 359 deaths under one month or 50 per cent. of the total deaths of infants for the fiscal year.

Physicians—Varicella Cases Should Always be Reported At Once.

The main issue which seems to concern those most interested in the subject of infant mortality is the question of improper feeding, or a poor milk supply and its possible bearing on diarrheal diseases, "summer complaint," etc., common to very young children.

Under the heading of "Diarrheal Diseases" (under 2 years) the deaths for 1918-19 show a total of 56 under 1 year—this including 10 under the age of 1 month. Therefore it is plainly evident that this class of diseases has but little bearing on the infant mortality situation in San Francisco, and we are led to believe that the character of our milk supply is largely responsible for this favorable showing.

As a matter of fact in a report issued several weeks since by the New York Milk Commission the City of San Francisco is credited as having the lowest infant mortality rate of any city in the Union with a population of 300,000 or over.

This finding was the result of an exhaustive survey made by this Commission covering the period for the calendar year 1918, its chief object being to secure data on deaths of infants caused by improper feeding and its consequent effect on the gastro-intestinal tract.

In the figures submitted by San Francisco in the questionnaire submitted by the New York Milk Commission the same relative ratio of deaths were maintained as set forth herein and we bore away the palm for conservation of infant life.

Without doubt our climatic conditions have much to do with the splendid general health of our babies—they can be kept out of doors practically all the year round—the excessive heat of summer and the rigors of severe winters are unknown to us—and as a result there is a vigor and vitality that is largely lacking in other large centers where the problem of overcrowding, extreme heat and cruel cold is always presented as the seasons roll around.

Physicians—Remember—The Importance of Promptly Reporting Births.

The last report received from the City of New York (week ending August 9) reports 271 deaths of children under one year during that period—140 from diarrheal diseases alone—at the same ratio this would mean 1084 per month, or one and one half as many as we have here in one year, and while it is true that their population is 10 times as large as ours, their baby deaths are 17 times as great.

Book Reviews

Medical Clinics of North America. Volume 2, Number 6 (May 1919); Baltimore Number. Octavo 287 pp. Published bi-monthly. Philadelphia and London: W. B. Saunders Company, 1919. Price per year, \$10.00.

L. F. Barker: Funicular myelitis. Julius Friedenwald: Personal experiences in treatment of ulcer of stomach. Various types of achylia gastrica as revealed by Rehfuess method of fractional analysis. John Ruhrah: Epidemic influenza in children. Gordon Wilson: Fundamentals in treatment of pulmonary tuberculosis. P. W. Clough: Pneumococcus sepsis. A. L. Bloomfield: Clinical diagnosis of epidemic influenza. T. R. Brown: Gastric signs and symptoms in diseases other than those of the stomach. J. H. King: Gastro-intestinal disturbances in metabolic diseases and diseases of the ductless glands. E. H. Gaither: Diet in treatment of digestive diseases. E. B. Freeman: Esophagoscopy as an aid in diagnosis and treatment of esophageal disease. F. H. Baetjer: Roentgenologic signs of joint lesions in children. Louis Hamman: Diabetes. Serous membrane tuberculosis. Auricular fibrillation. A. K. Krause: Multiple tuberculosis in childhood.

An Introduction to Neurology. By C. Judson Herrick, Ph. D., Professor of Neurology in the University of Chicago. Second edition; reset. 12mo of 394 pages; 140 illustrations. Philadelphia and London: W. B. Saunders Company, 1918. Cloth, \$2.00 net.

Though intended for medical or even pre-medical students, this is a valuable counselor and guide to that numerous body of practitioners to whom neurology is unexplored or ill explored land. Careful study of such a book as this will give anyone a sound basis for erecting diagnosis in nervous diseases, and at the same time will put him in the way of easy acquaintance with the advanced work in neurology which, without such introduction, is apt to be simply bewildering and discouraging.

The development of the nervous system is traced from the lowest organism, and throughout the work this relationship of morphology and function in man, to primitive forms and functions in the lower vertebrates and invertebrates is kept in mind. The clinical application of anatomical and physiological facts and laws is repeatedly insisted upon.

At the end of each chapter is a short but well selected bibliography of sources for those who wish to follow the subject further. With the index is combined a glossary which is a valuable inclusion.

The style is terse and idiomatic and the illustrations, many of which are original, are adequate without being elaborate.

E. W. T.

Clinical Lectures on Infant Feeding: Boston Method by L. W. Hill; **Chicago Methods** by J. R. Gerstley. 377 pages. Philadelphia: Saunders. 1917. Price \$2.75.

This book is based on a series of lectures given in North Carolina at the invitation of the University of North Carolina and the State Board of Health. The circuit was six towns, and the authors differed in their background, Dr. Hill speaking for the American school of pediatrics, presenting clean milk, detailed infant hygiene, and percentage feedings as fundamental, in contrast to the European background from which Dr. Gerstley presents his lectures emphasizing the more complex and difficult types of feeding, making boiled milk the prerequisite for bottle-fed infants. This author, after presenting the Finkelstein method for

preparing albumen milk (pages 220-221), follows it by a simplified method (page 235), which, as he does not specify what cream he uses, has not made an accurate substitute for the original method.

The book contrasts vividly the practical and possible methods of infant feeding that have been developed in this country with the more complex technic which infants' hospitals have developed.

The infant mortality of New Zealand has been reduced by teaching simple fundamental facts to all the people, and if the type of traveling lecture given in North Carolina is to be duplicated in other states, the fundamental, simple methods easily reproduced in the homes of the people should be the main curriculum given by the lecturer to the knowledge-seeking physician.

The idea of the clinic coming to the community and interesting the community's physicians as a group is certainly worthy of further trial throughout the country, and the authors, in publishing their lectures and clinic notes, have presented a new idea worthy of adoption.

A. B.

Diet in Health and Disease. By Julius Friedenwald, M. D., Professor of Gastro-Enterology in the University of Maryland School of Medicine and College of Physicians and Surgeons, Baltimore; and John Ruhrah, M. D., Professor of Diseases of Children in the University of Maryland and College of Physicians and Surgeons, Baltimore. Fifth edition, thoroughly revised and enlarged. Philadelphia and London: W. B. Saunders Company, 1919. Octavo of 919 pages. Cloth, \$6.00.

This book contains an immense amount of information in regard to food composition and dietetics. By mentioning the sources of their information, the authors have given us a sort of encyclopedia of everything that has been written on diet. As such, it must have a welcome place in the physician's library. It seems to us, however, that this attempt at completeness constitutes the big defect of a book which is supposed to be a guide for the "general practitioner, the interne and the medical student." Let us suppose that a young physician starting practice has to treat a nervous young woman; enteroptotic, underweight, with an atonic, dilated stomach and a floating kidney. He will find diets for nervous dyspepsia on page 467; for nervous affections of the intestine on page 487; for enteroptosis on page 465; for gastric atony on page 439; for gastric dilatation on page 437; and for floating kidney on page 548. What the girl probably needs is some rest from overwork and an overfeeding diet. An inadequate discussion of the rest cure is found on page 427 and a few lines on forced feeding on page 698. The closely related diet for anemia is on page 519; for tuberculosis on page 399.

Our knowledge of dietetics will never advance so long as we make such a complicated mess of it as that. Even if our patients would follow their diets closely, there is no scientific reason why we should prescribe one diet for gastric dilatation and another for gastric atony. The average textbook on treatment is a compilation of the views of many men. In scores of instances the authors must know that the suggestions are worthless or positively harmful, but they carefully avoid any statement which might help the reader in deciding which of several methods should be followed. Thus on page 445, Friedenwald and Ruhrah give the old Boas' nitrate of silver cure for ulcer without warning the reader that it never had any scientific reason behind it; it never did any good; and anyone who uses it now and produces an argyria will be subject to a serious damage suit.

It is to be hoped that in subsequent editions the authors will inject more of their own opinions and experiences into the book.

W. C. A.

Correspondence

PREVENTIVE DENTISTRY INVITATION.

To the Editor:—On Monday evening, October 20th, in the rooms of the San Francisco County Medical Society, Medical Building, the Preventive Dentistry Section of the San Francisco Dental Society will consider the treatment of root canals of deciduous teeth, both infected and uninfected. We wish to extend through the columns of your Journal, an invitation to the Medical Profession to attend this meeting and consider the subject with us. I am unable at this time to definitely announce the names of speakers, but we can assure you an evening well spent.

Any space that you can give to this notice will be appreciated.

Very cordially yours,

JOHN E. GURLEY,

Chairman Program Committee.

San Francisco, Sept. 12, 1919.

DR. VAN ZWALENBURG AT A. M. A.

To the Editor:—A report on the meeting of the American Medical Association. Sure I did enjoy it. So many old friends and new. The "Board walk" was a military procession all day long and most of the night—not all in uniform, but the bulk of the men had been in service. Made us poor rascals who could not get in look like thirty cents. One of the common experiences of life—keep us out and then rub it in by telling us what we missed.

The fellows really looked a little sorry the excitement was over. Yes, the universal restlessness is apparent all through the profession, wherever I go—changing, changing. Try for a little better place, that seems to be in the air. Many still talk of coming to California, in spite of the well-known fact that California has more doctors and more quacks than any place on earth. Must be the California spirit draws them.

I had one taste of it. After my last "spare" had blown out after about twenty tire changes in two days with country blacksmith garages in the Pennsylvania mountains, who should appear but our good friend, Dr. Sill of Oakland. After I had made him go on, saying only four miles to Cumberland on the rim, he came back and insisted on putting one of his spare tires on my car to take me into town. He says, "I would expect the same of you." California spirit. Strange too the only time in now six thousand miles that I have met a Californian on the road.

The presence of so many foreign representatives added greatly to the enjoyment of the Victory meetings and emphasized the new turn in the world's affairs—co-operation, brotherhood.

The papers generally naturally dealt largely with the war experiences, and much time was taken to discuss what we don't know about influenza.

In the House of Delegates things moved on very smoothly. The election of president promised an interesting time with several candidates, but all contest vanished and what little political moves appeared passed into history as among the smoothest and most gentlemanly ever attempted.

Yes, I am still on my vacation—a most enjoyable one. Home in October. Everywhere the dominant comment is upon the general unrest so apparent everywhere, but through it all and particularly in the medical profession runs the note of tolerance, co-operation and mutual helpfulness, and out of it all is coming a better understanding, a more united profession, a real brotherhood.

Very sincerely,

C. VAN ZWALENBURG.

Detroit, Mich., Aug. 26, 1919.

Immunity

The Journal will express no opinion of and assume no responsibility for the views of "Immunity" correspondents. They must win or lose on their own merits by abounding in their own wisdom, and each reader must appraise each communication for what it is worth and take it for better or worse.

Communications will not be signed when published, but the author must be known to the editor. Send on your complaints, your kicks, your knocks, your boosts. We want constructive and destructive criticism. Air your pet hobbies. You are not limited to your own town or the medical profession.

A MAN OF RARE JUDGMENT.

To the Editor:

It is gratifying to note that your editorials display concise up-to-date matter which ought to be of interest to every member of the State Society. If you were able to prevail upon the Program Committee to insist on shorter, more condensed papers read at the State Society meetings and thereby eliminate the cost of printing this unreadable junk, you would enhance the value of the Journal.

A READER.

San Francisco.

State Society

Acting upon the decision of the Council, the Medical Society has taken up the matter of acquiring new members. A great many good men come into our community who do not affiliate themselves with the county societies. Very often it is purely a matter of oversight. At other times there are men who have severed their connection with the county society for personal reasons, and do not re-establish that relationship because they have not been asked. Therefore, we are undertaking a campaign and county secretaries may be called upon to co-operate with the Council in this matter. Our agent at present is Mrs. R. V. S. Berry, who has been given full authority to canvass the state for new members and who is now at work on this rather comprehensive job. In the course of time she will visit practically every large center in California, and we shall expect the local county societies to give her all the assistance possible.

The Publicity Bureau has also established the beginnings of a lecture bureau, to be utilized by the county societies throughout the state. We have obtained a list of men of prominence in the profession who have agreed to go where they are called and deliver scientific talks, illustrated by lantern slides, when necessary, and specimens, and who represent the best thought in the profession today. The county societies will be sent a list of these lecturers and the topics upon which they will hear a man talk. Provision will also be made to furnish the lantern and other appliances for demonstration where these are necessary, the expense being borne by the county society and the arrangements being made by the State Society office. By this plan we hope to stimulate the attendance at the county society meetings and further the advancement of science.

Again we must ask all county secretaries to send in the names of prospective new members in order that this office may pass upon the eligibility to membership of men not well known in their community. In this way only can we keep out undesirable applicants, for once a man is elected to membership it is not always an easy matter to prove that he was admitted without sufficient investigation and to drop him from the list.

The regular quarterly meeting of the Council will be held on or about October 25th in Los Angeles.

County Societies

LOS ANGELES COUNTY.

Announcement of Operative Course.

Medical Department University of California.

Dr. Foster K. Collins, who has just returned from overseas service, will again resume his work at the Los Angeles Medical Department of the University of California. A course of operative surgery on the cadaver and on the dog will be commenced within the next several weeks. Time of beginning, the class and hours will be through mutual arrangements with the members of the class. The course will roughly cover practically all of the operations in general surgery. For further information address Dr. Foster K. Collins, 1318 Baker-Detwiler Bldg., telephone 66133.

Returned from Service.

Dr. Herbert V. Mellinger, 608 Baker-Detwiler Bldg.

Dr. Ernest L. Commons, 1100 Brack Shops.

Personals.

Local Surgeon Released from Navy.

Senior Lieutenant J. C. Horton, local surgeon and for the past two years a medical officer in the United States Navy, received notice yesterday that his request to resign was granted by Naval Secretary Daniels, to take effect immediately, so that he will return to his private practice in this city immediately.

Dr. Horton had entire charge of the big Naval influenza quarantine camp in Los Angeles, where thousands of sailors and marines were held during the epidemic.

Dr. Etta Gray of Los Angeles is Sent Abroad to Study Conditions.

Dr. Etta Gray of Los Angeles, president of the War Work Committee of the National Medical Women's Association, which has sponsored and financed the American Women's Hospital Service in France and Serbia, will sail for one year's duty in those two countries.

The American Women's hospitals have about \$100,000 in their treasury now, the result of public subscriptions and the aid of co-operating organizations, including the American Red Cross and the American Committee for Devastated France. More than 100 women served in France and Serbia from this organization after America entered the war and several units are now in various hospitals there.

Cowles Quits, But Mayor Says "No."

Dr. J. E. Cowles resigned as a member of the Playground Commission when Mayor Snyder took office. The Mayor declined to accept Dr. Cowles's resignation as he desired him to remain on the board. This is an unpaid board, the members of which even pay their own expenses on their inspection trips.

Dr. Mellinger Returns.

Dr. Herbert V. Mellinger, formerly of Chicago and who during the war served as a medical officer with the Sixty-fifth Regiment, Coast Artillery from California, has returned from duty overseas and is now living in Los Angeles, and has opened an office.

Pomona Surgeon Tells of America's Medical Men.

Sixteen thousand physicians and surgeons, 12,000 nurses and 122,000 listed men in the medical department served the American Army in France according to figures made public by Dr. J. K. Swindt of Pomona, in an address to the members of the Pomona Chamber of Commerce on his return from overseas. Thirty-three thousand American physicians volunteered for service, said Dr. Swindt, and those who served the men overseas cared for 195,000 wounded, of whom 182,000 recovered. Pneumonia and influenza caused the death of 8,000 men. Of the 2,200,000 American soldiers in France only 1,000 developed cases of typhoid, and of these only fifty died. In the Spanish-American war more American soldiers died of

typhoid and other diseases than were killed in battle.

Dr. Swindt said there were 72,723 deaths in the American Army during the war, 32,000 men being killed outright, 13,479 dying of their wounds, 22,000 of diseases and over 4,000 suffered accidental deaths.

"When the Americans first entered the great world war," said Dr. Swindt, "the physicians and surgeons were allowed to go to the front-line trenches. As a result, many were killed, and shortly thereafter an order was issued keeping all of them out of the trenches, as they were needed to keep the fighters up to condition and it is was considered unwise to expose them to unnecessary and useless danger. The casualty list of doctors rapidly diminished after that."

Dr. Swindt pointed with pride to the accomplishment of the medical department in landing a base hospital in France one month and one day from the date the United States entered the war. Another accomplishment that reflected the efficiency of this branch of the service was that of keeping 94 per cent. of the fighters always in condition for active duty. Only three per cent. indisposed by wounds and the other 3 per cent. by sickness. Dr. Swindt said this was a record that has never been approached in any other war.

Several notable buildings were used for American hospitals on the other side, among the most notable being the Haviland china factory.

The great size of some of these hospitals was another feature touched upon by the speaker, who said one contained 25,000 beds and would have been enlarged to hold 40,000 beds if the armistice had not been signed when it was. An interesting side light was the statement that there were 15,000 more beds in the base hospital than were actually needed at the close of the war.

The necessity of quick work was emphasized when the speaker said the surgeons in the hospital worked in shifts of four hours.

Capt. Orbison's Task on the Baltic.

An interesting insight into the work of the American relief administration in Europe, and the tasks and achievements that are earning for this country the gratitude and confidence of the world, is furnished through the correspondence of Capt. Thomas J. Orbison, Los Angeles physician, now in charge of the relief work in Libau, on the Baltic.

Capt. Orbison assumed charge of the first actual distribution of food in Libau on June 5. Libau is a city of 63,000 inhabitants. It contains, according to the best official estimates, 19,500 children from 1 to 16 years of age, of whom about 5,000 are under 7 and are absolutely destitute. Their immediate needs according to the official report, to the commanding officer of the Baltic mission, are food and medical attention.

The first problem on taking over the work was the formation and correlation of the various local agencies and institutions.

The first job was to deliver food and see that it was properly distributed in eleven city institutions caring for orphans from 5 to 16 years old. Most of these places were well run, and some had small gardens cultivated by the children. But practically every one was small and did not have the needed equipment. At the beginning Dr. Orbison personally supervised the work. Each institution received food supplies sufficient to keep it going one or two weeks.

The next reform put into effect was the rule made by Dr. Orbison that the destitute children had to be fed at the various kitchens instead of supplying their parents with their food allotments. This was enforced because it was feared that children who needed it might not get all the food to which they were entitled. This plan has worked out well.

The examinations of children showed that there

was need for drastic measures in counteracting the curable ailments, and one result of the examination method was that Dr. Orbison called a meeting of all physicians in Libau. In addition to the leading men of the profession, the mayor and chief business men of the city attended. Dr. Orbison's address was received with enthusiasm, and a committee of six was organized to formulate and operate clinics similar to the ones in the United States.

Win Health in Open Air.

According to Jennie Van Allen, while awaiting the establishment of a permanent preventorium in the vicinity of Los Angeles, the Los Angeles Tuberculosis Association is doing a splendid work by giving several hundred children the mental, moral, physical and spiritual stimulus of summer health camps.

The first camp was established at Hermosa Beach three years ago. Last year 220 boys and girls predisposed to the white plague were given a fortnight's outing at the open-air camp at Devil's Gate, Pasadena, donated by the Supervisors. The site being needed for public improvement work, a camp in the San Gabriel Canyon, ten miles from Azusa, was this year placed at the disposal of the association, and Miss Sidney M. Maguire, executive secretary, pronounces it a perfect location.

At the camp over 400 boys and girls from Los Angeles and Pasadena have been given a month's outing in the mountains, thanks in large part to the Junior Red Cross, of which Mrs. J. J. A. Van Kaathoven is chairman, which made the splendid gift of \$3,000. This organization is composed of school children and it was their express wish that their savings should go to help less fortunate children.

The City Council donated \$500 and the Tuberculosis Association received nearly \$1,000 in reply to circular letters sent to the citizens of both cities, who believe that the municipal stability depends upon the child of to-day who will be the citizen of to-morrow. Supt. Martin of the County Hospital loaned all the beds and bedding that could be spared from the institution, and the Brunswick Drug Company sent toothbrushes for every child. Needed clothing, games and hammocks, swings and other equipment added to the comfort of the camp, which included sleeping tents and pavilion, headquarters and tents for mess, hospital and recreation. The sports included baseball and basketball, croquet, punch bags, hiking and fishing.

The camp, which owes its existence to the energy of Miss Maguire, is conducted on military lines with Frank W. Otto, a medical student, as physical director. His days are full of action, and in addition to his other duties he officiates morning and evening at the raising and lowering of the flag, and also supervises the exercises inaugurated last year by Mrs. Zella V. Ornum Glimm, an authority on breathing and postural exercises, who has given her services several times a week during the three camp seasons.

The camp is under strict military hygiene and is in the highest sense of the word a health camp. Every child needs special care and discipline, as all are handicapped by inherited disease. Garbage is hauled away and tin cans and papers buried. The fly problem is eliminated, as every building is screened, the drainage is perfect and the sanitation above criticism by the Los Angeles Board of Health.

Miss Gertrude MacIntosh, the "real mother" of the camp, is on duty day and night. As head she must be doctor and surgeon in all the accidents and emergency cases, and her hospital tent is headquarters for all the troubles from a stubbed toe to a slight scalp wound received in the age-old game of defending the camp from invasion. Children are weighed once a day and during their stay have gained from two to ten pounds. There is

no distinction of race and all are taught they are good American citizens regardless of color or creed.

Dr. Hannah J. Beatty and Dr. Maria Patrick visit the camp on alternate weeks to examine these children, who are suffering from malnutrition and a predisposition to ills that inevitably affect an under-par child born of a long line of physically incompetent men and women.

Mrs. Des Camps is the matron of the camp. She was with the Thirty-fourth Division at Camp Doniphon, Fort Sill, Okla., and has soldierly tactics in enforcing order and cleanliness.

The association makes a powerful appeal to the officials and citizens of Los Angeles county to make immediate preparation to meet this tremendously important issue. A preventorium is needed in the coming winter. It is the country's duty to save the children from tuberculosis and stop the useless waste of human life and energy.

A week at the seashore and a fortnight or a month in the mountains start children on the road to health. But what is a week, a fortnight or a month when balanced against the life of a child? Make it twelve months for all the years he needs medical supervision. Liberally endow a permanent preventorium. Make it the biggest and finest in this United States, so that every child who has a touch of the white plague can have scientific care. It is the finest investment Los Angeles County can make.

New Hospital at Pasadena.

A six-story hospital building for the plant of the Pasadena Hospital Association, a semi-philanthropic institution, will be erected here within the next few months at a cost of \$500,000. The new building will adjoin the present building of the Pasadena Hospital at Pasadena avenue and Congress street. It will contain the latest approved hospital facilities and equipment and will provide increased hospital accommodations to meet the growing needs of the city. The new building will be built under the direction of a special committee of the association, comprised of David Blankenhorn as chairman, Theodore Coleman as secretary and treasurer, Judge G. A. Gibbs, Mrs. George E. Hale, Dr. Chas. D. Lockwood, John McWilliams and John S. Cravens. The committee will have architects prepare plans for the new building at once.

Sees Need for New Hospital.

Pleading for the establishment of more Seventh Day Adventist hospitals and sanitarium in Southern California, Dr. W. J. Johnson of the Glendale Sanatorium spoke before a large audience at the camp meeting at Western and Melrose avenues. The denomination now has three sanatoriums and one hospital in this part of the state, located at San Diego, Loma Linda, Glendale and Los Angeles, besides a large sanatorium at St. Helena, Cal., and another in Portland, Ore. It also has twenty-four other medical institutions in various parts of the world.

Deaths.

Dr. Anne W. Nixon, 461 East Colorado street, Pasadena, Cal.; Cooper Medical College, San Francisco, Cal., 1892; licensed 1893; age 75 years; died after a long illness May 11, 1919, of heart disease. Dr. Nixon was a member of the California State Medical Society. She was a widow and left no relatives.

Dr. William Bradley Towler, age 76 years, died August 12, 1919, at his home, 1217 West Forty-seventh street. Dr. Towler was a graduate of Victoria University, Toronto, Canada, May 5, 1896. After practicing his profession in Toronto for forty years he was forced to move to Southern California on account of ill health. He was licensed in 1896. For the past twelve years he had devoted his time to church and philanthropic work. He leaves a widow and a sister, Mrs. Robert McIndoo of Fresno.

Tots' Dentist Dead.

Dr. Birdine M. King, who was 52 years of age,

died August 11, 1919, at her home, 706 South Chicago street. She came here from Gridley ten years ago to take charge of the dental work at the O. T. Johnson dispensary, which was later taken over by the Board of Education. Her death followed an operation performed some time ago.

Dr. King was frequently called "the children's dentist," having pioneered the dental clinic work here. She was a member of the Women's Professional Club and of the Southern California Dental Society and the Women's Dental Society.

Dentist Succumbs.

Well-Known Resident Fails to Rally from an Operation.

Dr. Wallace H. McHardne, 33 years old, died August 25 at the Angelus Hospital, after an operation from which he failed to rally. Dr. McHardne, who has resided in Southern California for the past fifteen years, was well known in Los Angeles, having made many friends during his residence here. He was a graduate of the dental college of the University of Southern California. After his graduation from college he practiced for ten years at Colton. Two years ago he returned to Los Angeles and opened offices at his residence on West Twenty-third street. He was a member of the Southern California Dental Society, and of the Colton chapter of the Masons. Dr. McHardne is survived by a widow and two children.

MENDOCINO COUNTY.

A regular meeting was held on September 6th at Fort Bragg, in the office of Dr. Harper Peddicord. Present: Drs. C. L. Sweet, Harper Peddicord, F. McLean Campbell, L. C. Gregory and Oswald H. Beckmann; the president, Dr. C. L. Sweet, in the chair. The business part of the meeting was attended to, but as those on the program failed to materialize, their part of the meeting was turned into a social smoker. After the meeting we drove over to Dr. Peddicord's residence, where Mrs. Peddicord had prepared a very choice venison lunch. It received full justice from the partakers. All the credit for this banquet should not be showered on the mistress of the house; the doctor himself had supplied the venison by his prowess as a nimrod. It was all very well for Dr. Peddicord to bring down the buck with a rifle bullet, if it had been the County Society secretary it would not have been good form. That individual would have been expected to follow in the footsteps of his chief, the State Society secretary, and use the bow and arrow. Then what would have taken the place of the venison? This secretary is not even competent to bend the bow.) Thanks to Dr. Peddicord from the guests and a toast for his good wife.

ORANGE COUNTY.

The regular monthly meeting of the Orange County Medical Society for August met in the Library Building, Santa Ana, and was well attended. The paper of the evening was given by Dr. Wilson of Los Angeles, entitled "Repair of injuries of the bones of the upper extremity." The address was illustrated by many stereopticon views and proved to be of much interest to all. After the scientific part of the program was finished the members retired to James' Cafe to enjoy a delicious luncheon.

Dr. John Wehrley was the chief speaker at the September meeting. The doctor's paper, entitled "The laboratory as an aid in medical practice," brought out a most interesting and profitable discussion. Having had a wide experience in the war and an opportunity to study many cases, the doctor's experiences held his audience to a late hour. His research work in gastric ulcer developed a

new diagnostic symptom which was referred to several times by different speakers as "Wehrley's sign," which may yet place the speaker among the immortals.

Drs. Burlew and Maroon have just returned from a visit to Eastern clinics.

Dr. V. P. Osburn has accepted a position with Drs. Johnston and Wickett as internist.

SAN DIEGO COUNTY.

A splendid tribute was paid to the organization and progress of the League for the Conservation of Public Health by a large meeting of physicians of San Diego and adjoining counties, held in the Medical Library rooms, San Diego, on the evening of Tuesday, September 9th.

Dr. F. A. Burton, president of the San Diego County Medical Society, presided, and after two hours of excellent speeches a profitable evening was terminated by light refreshments and a social session.

Dr. John C. Yates of San Diego, president-elect of the State Society, briefly outlined the events leading up to the organization of the League, which auspiciously occurred in San Diego about two years ago.

The chief speaker of the evening, Mr. Celestine J. Sullivan, executive secretary of the League, was then introduced, and after tracing in eloquent words the early history of the development of freedom in California, touching with a master hand the outstanding figures from Junipero Serra to the present day exponents of liberty, he emphasized the absolute necessity of organization in the development of any movement and strongly urged his hearers to bend their energies to the securing of a more desirable medical practice act to replace the worn-out vehicle that now serves as an apology for one.

While detailing some of the triumphs of the League during the brief period of its existence in the matter of curtailing vicious legislation in matters medical, he tersely expressed the objects of the League by saying that all acts and plans of the League must stand the acid test, "Is it for the public good?"

After outlining the various classes of League membership he stated that many of the hospitals in California had already become members of the League and that the ideals of hospital standardization in California through the League's efforts would be rapidly realized. The rallying to the support of the League on the part of the doctors, lawyers, druggists, nurses, business men, manufacturers, corporations and institutions of learning, all express belief in not a "medical trust" but a high trust in the profession of medicine. He exhorted the physicians before him to awaken to the fact that much of the public health work which is so popular at the present time begins and ends largely with the exploitation of the doctor. The time has come for the doctor to take the initiative in the organization and conduct of public health crusades. The speaker repeatedly urged the physicians to educate their legislators to a proper conception of the relations between the medical profession and the community in order to pave the way for a more intelligent discussion of a stronger and better medical practice act to comport with the enlightened vision of the people of our great commonwealth of California.

He closed by quoting from Roosevelt that admirable dictum: "Every man owes to his profession a portion of his time and some of his money to aid in its upbuilding."

Dr. W. T. McArthur of Los Angeles gave a brief resumé of how the profession of Los Angeles organized itself in support of the League. While expressing the belief in the absolute need

of unity and organization, he declared that there was room for the individual giving of time and money on the part of every licensed medical man in the state.

Dr. G. G. Moseley of San Francisco, one of the group of founders of the League, spoke briefly on the demand for organization and centralized power. He also drew attention to the splendid opportunity which the profession enjoys through an organization like the League in enabling it to give to the people, through the press and other proper means of publicity, valuable knowledge on matters of personal and public health.

Dr. G. L. Cole of the Los Angeles Medical Society gave a brief but forceful testimony of his conversion from an attitude of skepticism regarding the League at the time of its formation to one of utmost faith and enthusiasm at the present time.

Dr. Harlan Shoemaker, secretary of the Los Angeles County Medical Society, spoke glowingly of the cordial relations developing between the various county units as the result of the League's activities drawing them more closely together than the State Society had previously succeeded in doing.

Dr. D. C. Strong of San Bernardino also paid tribute to the accomplishments of the League in the brief eighteen months of its initial effort.

Major J. F. Percy of Camp Kearny spoke of some of his experiences and observations while head of the committee on medical legislation of the Illinois State Medical Society. He characterized the California League movement as the most potent attempt indirectly to express medical progress that he had ever seen.

Dr. H. P. Newman of San Diego expressed his thorough endorsement of the movement.

Dr. Martha Welpton of San Diego enthusiastically stated that the medical women of San Diego were a unit in their support of the League.

Dr. P. M. Carrington, one of the founders of the League, expressed himself as feeling that the time was ripe for an appeal for members and financial support from those present.

On formal motion the chair appointed a membership committee of three to receive voluntary contributions for the support of the League. Several hundred dollars were promptly raised in this way.

As a generator of enthusiasm and confidence in the League's future, this meeting was a pronounced success.

SAN FRANCISCO COUNTY.

Dr. Ernest C. Dickson has returned to the Stanford University Medical School from military service overseas. While abroad, Dr. Dickson was posted with No. 4 Canadian General Hospital, the University of Toronto unit, having charge of the acute medical service, and being supervisor in internal medicine.

Dr. William Palmer Lucas, Professor of Children's Diseases at the University of California Hospital, chief of all the work at the University for children, has received the notification from Monsieur Andre Tardieu, French Minister in charge of his government's American affairs, that the French government has conferred upon Dr. Lucas Chevalier de la Legion d'Honneur, with the gratifying comment that the French people with whom Dr. Lucas had worked for the children of France, had asked that he be decorated. At the same time Dr. Lucas was notified that the Minister of the Interior had conferred upon him France's highest medical decoration, "La Medaille de Vermeil des Epidemics," for services rendered to children of France.

California State Journal of Medicine

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Contributors, subscribers and readers will find important information on the sixteenth advertising page following the reading matter.

VOL. XVII

NOVEMBER, 1919.

No. 11.

WANTED!

An able-bodied kicker, capable of running one perfectly good Medical Society.

It is often asserted by members of the society, especially by the down and out, that they take no interest in the society because it is run by a clique. This clique is supposed to govern the policies and control the destinies of the organization. It is alleged that this clique excludes them from the privileges and benefits of the society.

It is true that in every going concern, every concerted human endeavor, there always are a few men at the initiative center who supply the energy and the intelligence of the body. They may, and often do, usurp the privileges and impose upon the rights of others.

Power often oversteps equity, but in a democratic government, such trespass results in speedy reproof. In our society a grave usurpation of rights of others would result in an immediate readjustment and self-government.

There are men who are prominent in our organization because they are willing workers; because they supply the kinetic energy necessary to its life. These men sacrifice their personal interests, their comforts and their economic welfare in the cause of the many. It is altruism, not selfish interest. They may be wrong at times, they may be headstrong, they may lack vision, but they are willing to serve, where others only stand aside and criticize. They are the clique. They are also your servants. You are the master.

If there is one among you who sees wherein our mutually governed body can be improved, and is willing to throw his effort into the progressive activity of the society, we welcome him with joyful shouts. Yea, verily, we shall rise up and call him blessed! You shall have the best office in our society; we will put you on the most important

committees; you shall be made a delegate. We will elect you to the Council. We need a good editor of the Journal, and we pray daily that the Lord shall send us a wise man out of the East, that he may be a judge among us. Come, and be our secretary. You are hereby nominated president of the Medical Society of the State of California.

Come! for the guests are gathered and the table waiteth. Great shall be our rejoicing.

What we want is a good man to run the clique that runs the State Medical Society.

LOS ANGELES AND SAN FRANCISCO
PHYSICIANS SKIP THIS.

The Journal will endeavor to serve the interests of the average doctor outside the larger cities by devoting whatever space is necessary to short summarized case reports of usual or unusual cases occurring in the actual practice of any doctor outside the cities of Los Angeles and San Francisco. Send them in. Any case that is of special interest to you. Any case that you would like to have discussed from the standpoint of diagnosis, treatment or in any other way. No bibliography, no "literature," just the concise description of the case. Your name will not be published. Only the case record will appear. With it will be such discussion as any one wishes to offer.

Cases presented one month will be open for discussion the following month. If you, the doctors of the State, will take hold of this subject, you can make it one of the most valuable and interesting features of the Journal. It will depend on *you*. The editor assumes no responsibility. If you do not want it, send no case reports and it will not trouble you. If you do want it, if you think you can get some advantage of consultation and discussion on cases in your own actual practice, send

them in at once and as often as you can. Remember, no formal article or long-winded résumé. Just the case itself, and, if you wish, a request for discussion of the thing that baffles or interests you. Your name will not appear (unless you specifically request it). The editor will see that each case is discussed, no names mentioned, by at least one authority in the department involved. Everyone who wishes may discuss any case printed, if he makes his discussion short and to the point. Send them in. For the December issue, have your case reports in the Journal office by November 10.

THE IDEAL DOCTOR.

In 1873, M. Henri-Frederic Amiel wrote as follows in his *Journal Intime*:

"Why do doctors so often make mistakes? Because they are not sufficiently individual in their diagnoses or their treatment. They class a sick man under some given department of their nosology, whereas every invalid is really a special case, a unique example. How is it possible that so coarse a method of sifting should produce judicious therapeutics? Every illness is a factor simple or complex, which is multiplied by another factor, invariably complex,—the individual, that is to say, who is suffering from it, so that the result is a special problem, demanding a special solution, the more so the greater the remoteness of the patient from childhood or from country life.

"The principal grievance which I have against the doctors is that they neglect the real problem, which is to seize the unity of the individual who claims their care. Their methods of investigation are far too elementary; a doctor who does not read you to the bottom is ignorant of essentials. To me the ideal doctor would be a man endowed with profound knowledge of life and of the soul, intuitively divining any suffering or disorder of whatever kind, and restoring peace by his mere presence. Such a doctor is possible but the greater number of them lack the higher and inner life, they know nothing of the transcendent laboratories of nature; they seem to me superficial, profane, strangers to divine things, destitute of intuition and sympathy. The model doctor should be at once a genius, a saint, a man of God."

PROTECT THE FLIES AND SWAT THE DOCTORS

An organization that has for its avowed purpose "protecting the public schools and public school children from medical and ecclesiastical exploitation" has developed a very tender regard for flies. In one of its pieces of propaganda it attempts to ridicule the public health service, the State Board of Health, the Health Officer, vivisection, vaccination, fly swatting and other agencies and methods whose virtues have been frequently demonstrated.

Of course, those who do not believe in the existence of germs and disease cannot comprehend how flies can spread things that their creed proclaims as non-existent. They prefer to swat the Doctors and protect the flies, although we know

that wherever flies flourish filth is near at hand. Flies breed and live in filth, and it is inexplicable why any organization, so remote from Egyptian environment, should oppose fly-swatting. It is common knowledge that a pair of flies born in April will give origin to millions by August. It is also known that typhoid fever, diarrhoea, dysentery, tuberculosis and other diseases are carried by flies and that crepe has been placed on countless doors by the invasion of flies.

Instead of being an error of mortal mind the fly is a mortal enemy of mankind. The value and kind of "protection" which an organization that ridicules fly-swatting is capable of giving school children and the community at large can hardly be underestimated. Verily, the Jumping Frog of Calaveras had instinctively a more helpful interest in protective measures and public health work than such an organization. For when Smiley would sing out, "Flies, Dan'l, flies!" quicker'n you could wink he'd spring straight up and get the flies.

The error which underlies the entire attitude of organizations of this character in their opposition to preventive measures adopted for the public health by Federal and State laws is that they apparently believe that these laws must have their private sanction in order to become valid. They regard their private belief as superior to and independent of laws that do not conform to their private belief. Health laws, like all other laws, must be the same for all classes and not varied for particular individuals or favored classes.

It is not only a menace to the health of the public, but to the impartial administration of the laws of the land when some seek and receive special privileges because of particular beliefs coupled with particular political influence. In order to give "equal protection of the laws" to all citizens in accordance with the provision in the Fourteenth Amendment to the Constitution of the United States the laws must be impartially administered to all.

Singular beliefs and private interpretations fade into insignificance when compared to the broad and general application of health laws which are of vital interest to all classes of society and every one in each community.

We cannot close our eyes to the fact that there are many defective children suffering from and handicapped by defects that can be readily remedied.

"As well at noon may we obstruct our sight

And doubt if such a thing exists as light."

It is also apparent that many of these minor ills, neglected, become major ailments and not only impede the progress of the children but produce fatal results.

Any organization that is harassing and hampering the work of the Board of Health and the activities of the Health Officers and thereby reducing the efficiency of our Health departments is destined to deserved defeat. No matter how good the intentions behind such efforts that are mischievous in effect the freedom and rights of the few must not overstep the rights of the many.

The freedom and alleged rights of individuals are frequently subordinated to and interfered with for the public good. The laws which forbid the intermarriage of whites and blacks interfere with the individual preferences of some of each color. But the health, happiness and good order of present and future generations outweigh the color-blind predilection of the few.

SIR WILLIAM OSLER'S CORRESPONDENCE

Personality is shown through the channels of correspondence as vividly as through any other medium. A letter written to the League for the Conservation of Public Health by Sir William Osler emphasizes this fact.

We all know what a busy man Dr. Osler is and the great demand that is made upon his valuable time. Yet, when the League wrote to him for certain information in reference to the Medical Practice Act, his reply was prompt, clear and terse. Although far removed from the scene of the League's activities the distance was quickly bridged because Dr. Osler instantly recognized in the League's undertaking a constructive effort to enable modern medicine to render a larger service.

We will confine ourselves to quoting the concluding paragraph from Dr. Osler's letter: "Let me know if I can be of any help at any time." Here we have exemplified the splendid spirit of co-operation that all of us may profitably emulate. This man of great scientific attainments, high honors and absorbing affairs finds time not only to answer promptly a communication from a League many thousand leagues away, but he generously offers to help at any time. "Time travels in divers paces with divers persons." Busy men like Dr. Osler must keep their time burglar-proof against the thefts of procrastination. You do not find the desks of busy men filled with unanswered letters.

A wag once said that the degree of Doctor of Letters should be conferred upon Doctors who answer their letters promptly. There may be some justification for this jocose remark, and we therefore commend Dr. William Osler's promptitude as an example for our Doctors to follow.

HEALTH HECKLERS

Have you ever heard of "health hecklers," those tireless and tiresome obstructionists that are fanatically striving against health programs, ever doing anything for the advancement of public health?

The eradication of yellow fever at Panama, through the devoted work of former Surgeon General William C. Gorgas and his scientific medical staff, made possible the building and maintenance of the Panama Canal.

Through the work of this same distinguished Doctor, using the scientific methods developed through medical research, yellow fever has recently been conquered at Guayaquil and other

points on the west coast of South America. Through skilled laboratory investigations Noguchi has been able to identify what is probably the cause of yellow fever, a step which will materially hasten the total eradication of yellow fever from the earth.

There is no community so credulous that it would rely upon the absent treatment of health hecklers to extirpate yellow fever, malaria, smallpox, etc. These obstructionists are not strong on pest prevention, they are distinguished for being pestiferous. Pestiferous people are not the kind that are entrusted with the big constructive work of the world.

In the armies and among civilians the surgeons and physicians have saved hundreds of thousands of lives. Let all understand that are attempting to obstruct the progress of modern medicine that they may heckle and handicap it but that the conservation and protection of the public health will not be abated, but that nuisances will.

ANOTHER FAKER AT LARGE.

Why cannot the doctor who is approached for money by some more or less unknown supplicant, posing as a member of the reputable medical profession, refer the aforesaid supplicant to the officers of the local medical society or the established charities? Then his claims can receive due investigation and real need can be adequately relieved. Too often the only relief is to the doctor's already anemic pocket book. The medical profession should not by training or experience be more gullible than other professions. Moreover, doctors of all men should appreciate the serious social damage too often resulting from indiscriminate charity. Send them to the responsible and established agencies for administering charity or to the officers of the local medical society.

These remarks are occasioned by a report from a physician in the southern part of the State, of the pernicious activities of one, self-styled "Dr. Manx." This Manx plays the game of asking for a few days' assisting work with a surgeon, and when sufficiently acquainted, states that he and his wife are hungry, and need a few dollars to buy food. Several supposedly intelligent doctors have fallen for this easy means of separating them from their cash. Presumably the same individual operated in Santa Clara County in 1918, holding himself out then as a "Dr. Mauz" or "Dr. Manx," with letters from the Santa Fe Company, and admission cards to the Senn clinic in Chicago. He is described as a man of about 45 years, clean shaven, dark complexion, well-dressed, about five feet ten inches tall, and weighing about 175 pounds. One check given him came back endorsed "Dr. E. Mauz."

Such oily and tortuous applicants demand investigation. It is unfortunate that the medical profession will succumb to the siren songs of such predatory grafters. Avoid them as you would gold mine and phony oil stock.

THIRD SURVEY OF HOSPITALS.

The third survey of hospitals being made under the auspices of the American Medical Association is now well under way. Through an extensive correspondence and a third questionnaire the Association has collected a mass of information on the subject. Much of this material has been tabulated and forwarded to committees in each State representing the State medical associations. Most of the State committees have arranged definite lines of action and by inspection of the hospitals or by other methods are securing first-hand information by which the data collected by the Association is being carefully checked. The immediate end sought is to provide a reliable list of hospitals which are in position to furnish a satisfactory intern training. The investigation is not limited to intern hospitals, however, but will cover all institutions and the data obtained will be useful in any future action which may be taken in classifying hospitals. The work in California is in charge of a committee of which Dr. Herbert C. Moffitt, Dean of the University of California, is chairman, the other two members being Dr. Wm. Ophuls, Dean of the Stanford University Medical School and Dr. W. H. Kellogg, Sacramento. The work of the committee will be done through the section on Advancement of Medical Education and Science of the League for the Conservation of Public Health in California. This section, fortunately, is a permanent organization, and should prove an adequate means through which the work of the committee may be accomplished. The closer relationship which the hospital now bears to the public in the community which it serves makes it all the more important that the service rendered by it shall be excellent in character.

EDITORIAL COMMENT.

How would you like to have a committee of two of your fellow physicians review the average clinical records you keep each day on your average patients? Try for a month keeping records which would pass muster for completeness and see how it reacts on the character of your professional work.

In Science recently,¹ Professor Millikan of the University of Chicago, makes an exhaustive study of the present obligation and status of science as a result of the war. Amongst other conclusions of suggestive interest, he states, "There can be no question that the better wage and the greater prosperity of the American workman is due primarily if not wholly to the fact that the American workman in every line of industry actually produces from two to five times as much per man-hour as does his European brother. . . . How unimaginable then the stupidity and how pathetic the blundering of that large class of labor leaders who are endeavoring to improve the conditions of labor by limiting production."

¹ September 26, 1919.

A committee of the faculty of the University of Pennsylvania has canvassed twenty-five of the leading medical schools of the country to determine their attitude toward under-graduate research work. A careful review of the evidence obtained led to the following conclusions: 1. The vast majority of Class A schools approve of under-graduate research in theory. 2. Many medical schools approve of it in practice by conceding hours from the regular curriculum which can be spent in research. 3. The opportunity for under-graduate research has greatly increased since 1912. Stanford and the University of California medical schools are in the lead in promoting under-graduate research and are justified in the point of view and breadth of preparation thus supplied to their students.

As showing the extreme state of misinformation and ignorance which lurks where one would least expect it, read the following, from Commerce and Finance: "Unquestionably the physicians are in a bad way. A lot of them are not earning enough to live properly. Something should be done for them. It is doubtful if unionism is the prescription. There are too many doctors. The situation would be improved if a lot of them went to work. America needs more producers and fewer professional men. It could get along nicely with 50,000 fewer physicians." Isn't that remarkable? The money-changer sticks his head out of his counting house long enough to survey society and the medical profession, pass judgment on both, we surmise with equal accuracy, and retreat again to his absorbing problem of making two dollars grow where only one grew before. Just like that! Is it not refreshing to get such expert and judicial opinion, especially on a subject on which the speaker is so palpably misinformed and woefully out of touch with all but money-grubbing? Really he who wrote this choice bit, should read the editorial last month on "Are There Enough Doctors?". And then, how refreshing and restful to find that the doctor does not work! Some of us had suspected this blissful situation for some time but here we have irrefutable proof of it. And moreover, the doctor is not a "producer." What a load slips from our shoulders as we thus discover the real state of affairs.

"The practice of medicine does not consist so much in the administration of treatment by one method or another, but in diagnosing diseases and in giving advice. Sometimes the patient, when the disease is properly diagnosed, may require simply the fitting of glasses; sometimes he may require a surgical operation; sometimes he may require a special diet, or a change of climate, or a special form of exercise, or the use of electricity, or massage, or some special form of manipulation, or advice with reference to his habits, or the administration of drugs. The ability to treat diseases presupposes an understanding of and familiarity with the structures and functions of the human body in health and in disease, a knowledge of the signs and symptoms of disease, and a familiarity with the influences surrounding the individual that may have a bearing on his health. The most valuable single remedy or method of treating any disease is apt to do more harm than good in a large majority of cases, if applied indiscriminately by an individual who is ignorant of the fundamental scientific branches which all schools of medicine claim to teach before allowing a student to apply to any state for a license to treat sick patients as a business."—Dr. W. B. Russ, Texas State Jour. of Med.

Original Articles

PLASTER METHODS OF TREATING MUSCLE CONTRACTURES FOLLOWING WOUNDS.

MAJOR GEORGE J. McCHESNEY, M. D., San Francisco

A large percentage of wounds in the late war caused contractures of the muscles and fascial tissues of the upper and lower extremities, restricting motion in the neighboring joints. If we found the joints normal or with only slight adhesions, and the bones sound or with well healed fractures, we still had left a large group of wounds in the treatment of which the following methods, as developed at the Special Military Surgical Hospital at Birmingham, Eng., have given excellent results.

Hip—The usual contracture is adduction from injury to the adductor muscles. It is best treated by gradual abduction, using strong traction on a Jones abduction frame, or by immediate abduction under anesthesia on a Hawley table, and then fixation in plaster.

Knee—The usual deformity is one of flexion due to contracture of the hamstring muscles. A plaster splint is applied from the groin to the ankle. The knee, specially well padded over the patella, is in maximum comfortable extension (Fig. 1). After a few days, when the plaster is well dried out, the splint is cut two-thirds the way round at the knee, leaving the anterior third as a hinge. Then as much extension is made as the patient can stand, depending on the degree of fibrosis of the hamstrings, and a cork is inserted to keep this gap open (Fig. 2). The whole is sealed over with a few turns of a plaster bandage. Once or twice a week this procedure is repeated by removing the seal of plaster and inserting a wider cork. If there is much flexion deformity, two or even three plaster splints may be required, and careful watch is kept of the skin over the patella where the fulcrum pressure comes. The advantages of this method over the Turner splint are that the patient cannot ease the corrective strain unbeknown to his medical officer, and, second, it is neither heavy nor bulky; trousers can be worn and the patient is able to be about with or without crutches.

Limitation of power of flexion due to quadriiceps injury is better treated by exercises and massage therapy in milder cases, operative measures in severe.

Ankle—Here the extremely common contractures of the calf muscles are due either to their own injury and subsequent fibrosis, or to the injury or paralysis of the anterior leg muscles, allowing unopposed contracture of the calf muscles. With either of these two causes the treatment is the same. A plaster splint is applied from the top of the leg to the toes, with maximum dorsiflexion and slight inversion of the foot. When the plaster is dry, a wedge one to two inches wide, depending upon the amount of foot drop, is cut anteriorly over the ankle-joint from malleolus to malleolus (Fig. 3). The foot is then dorsiflexed to the limit of the patient's comfort, thus partially closing the gap, and sealed or fixed in this position with



Fig. 1. Fig. 2.
Method of gradually extending knee.



Fig. 3. Fig. 4.
Method of gradually dorsiflexing foot.



Fig. 5. Fig. 6.
Method of gradually extending elbow.

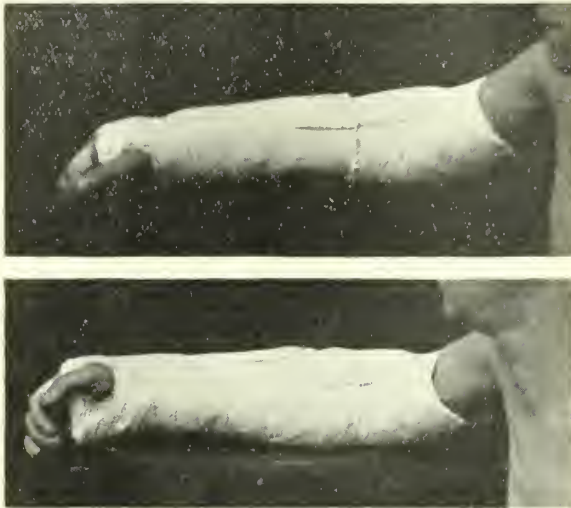


Fig. 7.
Method of gradually supinating forearm.

Fig. 8.

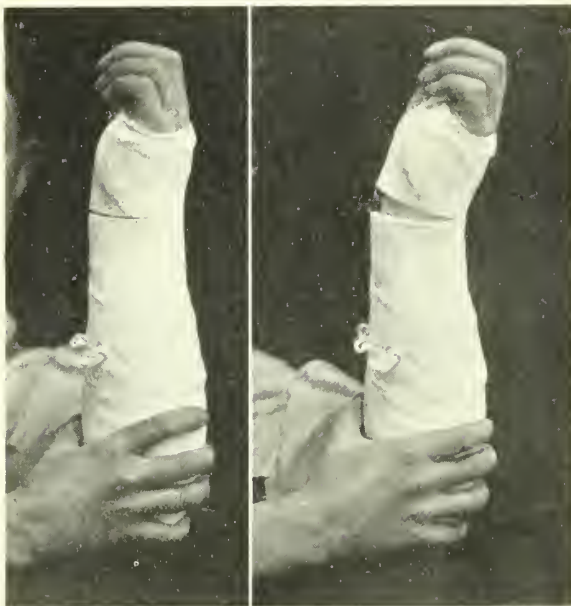


Fig. 9.
Method of gradually extending wrist.

Fig. 10.

a plaster bandage, applied by the assistant or by the operator himself, if he maintains the correction by bracing his chest against the ball of the patient's foot (Fig. 4). Repetition of this procedure a few times once or twice a week rarely fails to bring the foot to a right angle. It should be held in this position for a week to a month depending upon the tendency to relapse, and the patient is encouraged to walk upon it. Cautiously removing the splint, and instituting immediate massage and exercise treatment, with use of a Jones clubfoot shoe at night, should be a sufficient protection against relapse.

Shoulder—Here a plaster splint applied with maximum correction of abduction can be cut two-thirds the way round the shoulder, leaving the uppermost third as a hinge. It is then abducted to the limit of comfort, a cork inserted, and plaster

seal applied. This weakens the plaster markedly in a vital place, however, and the ordinary shoulder spica will only stand two or three such corrections when a new one is necessary. This makes it often more practicable to use a metal abduction splint, and bend the stem as needed. But here the usual disadvantage must be considered, that the splint is not completely under the medical officers' control.

Elbow—Flexion contracture due to injury of the Biceps or Brachialis Anticus is usually easily corrected by this method. The splint, well padded over the olecranon, is cut two-thirds the way around the front at the joint level (Fig. 5). Extension is made to the limit of comfort and

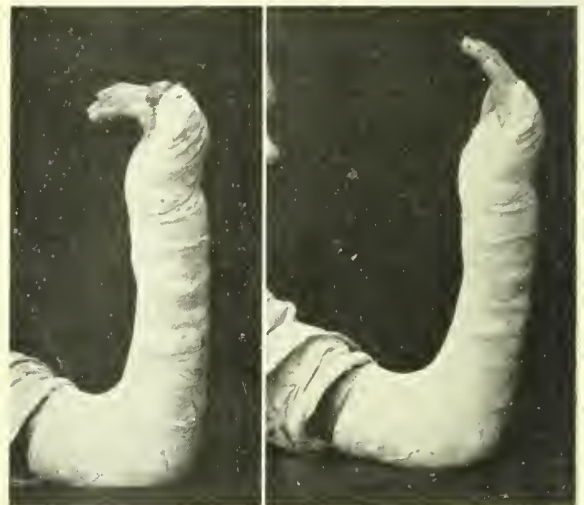


Fig. 12.

Fig. 11.

Fig. 14.

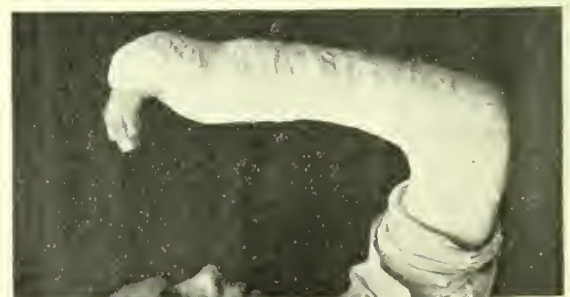


Fig. 13.

Method of gradually flexing phalanges.



Fig. 15.

Fig. 16.

Removable splint for flexing phalanges.

cork inserted (Fig. 6). It is then sealed with plaster in the usual manner.

The gradual correction of complete extension deformity is difficult mechanically (as is similar deformity at the knee), and I have had to resort to open operation in every case before obtaining a right angle.

Forearm—Injury to the flexor muscle bellies usually involves the Pronator Radii Teres and causes a pronation deformity. When no bony nor joint obstruction exists, this is easily corrected by a plaster splint extending from three inches above the elbow, which is held at right angle, to the fingers including the wrist, and leaving the fingers and thumb as free as possible for voluntary movements. The plaster in the palm should end two inches above the web of the fingers, just including the thenar eminence. This splint, put on with maximum supination, is cut completely around about three inches below the elbow, several days later (Fig. 7). Further supination of the lower part of the splint is made to the limit of comfort, and the two sections joined or sealed with a plaster bandage (Fig. 8). The procedure is repeated at the usual intervals.

Wrist—Flexion deformity from injury to the flexor muscles or tendons is quite common and usually corrected easily by this method, if the wrist joint or carpus is not involved, and even in the latter condition much improvement can be obtained in many cases. The splint is applied to the hand as in forearm supination, except that the thenar eminence is left free (Fig. 9). Correction is made as illustrated, (Fig. 10) and plaster sealed in the usual way.

Fingers—The metacarpo-phalangeal joints should usually be considered first, and unless they can flex almost to a right angle, should be treated in the following manner: A plaster splint is applied to the dorsiflexed wrist, coming to the distal ends

of the first or proximal phalanges, which are flexed as much as possible. The splint is reinforced on the dorsum over the fingers by a "slab" made by reduplicating plaster turns. After two or three days, when the plaster is dry, the splint is cut away over the palmar surface of the fingers to the middle of the palm, well above the metacarpal heads, leaving the thickened plaster on the dorsum. Sometimes, not usually, it is advisable to connect front and rear portions by a narrow plaster bridge over the web of the thumb (Fig. 11). Felt pads are now shoved in between the dorsal slab and the fingers to the limit of comfort (Fig. 12), and sealed with plaster (Fig. 13). These pads are added to, weekly or bi-weekly, sealing with plaster each time. With the plaster cut away as described, it is obvious that at all times the patient can move his fingers in the desired direction and in that direction only. This is a great help, and shortens the time of treatment materially.

If the second and third phalanges do not flex sufficiently to bring the ends of the fingers to the palm, a glove can be worn with tapes attached to its finger ends, and fastened to loops passed through holes in the front of a plaster cock-up splint. If there is much resistance on the part of the tissues, the splint counterhold should be obtained by passing the plaster above the right-angled elbow, thus pulling against the lower part of the humerus (Fig. 14). A splint ending below the elbow is pulled downward, and usually causes painful pressure against the base of the first metacarpal.

Lieutenant C. A. Downs, on my service, has devised a neat plaster slab splint, obtaining its hold above the right-angled elbow, and which is removable for massage and exercises (Figs. 15 and 16).

Often several treatments can be carried out in the same splint simultaneously. The commonest combination, perhaps, is flexion of the first phalanges, dorsiflexion of the wrist, and supination of the forearm.

Usually by the time these corrections are completed, the patient has attended to the flexion of the second and third phalanges. If not, a splint with glove as described above, attends to this, or, if far enough along, a removable slab splint with glove can be used, and massage and exercises given daily.

In the severer contractures of the Volkmann type, the distal deformities, according to Jones' rule, should be corrected first.

The plaster treatment is never intended to supplant massage and exercise treatment, but rather to attack the contracture in its most resistant stage and stretch the tissues, in the shortest possible time, to full or over correction, and then gradually give way to massage and exercises, which maintain or increase the correction while restoring activity and suppleness to the affected muscles. This is the true sphere for massage and exercises in difficult cases. Where the contractures are mild or of an easily yielding character, they can be used from the beginning. We have often seen patients coming from general hospitals where fairly severe con-

tractures have been massaged for months with no improvement and with consequent discouragement of patient and masseuse. By graduated stretching in plaster, the worst of the contracture was overcome and the treatment satisfactorily concluded by massage and exercises.

Also with many of the more severe contractures, we have avoided operation with its consequent immediate correction, but prolonged weakness of severed tendon or muscle. We often used to elongate the Tendo Achilles at operation (by Jones' method preferably). Now only the most extreme degree of muscle fibrosis and scarring require its use.

We have also largely avoided rapid stretching under anesthesia because of the ever present danger of inflammatory reaction and reopening of old wounds. Indeed, even with cautious gradual extension this danger must be thought of. Besides, rapid stretching tears muscle or tendinous tissue, which must be replaced by scar tissue, and our healing and restoration of full function is delayed thereby.

Of course this plaster splint is not at all applicable for correction of the so-called functional contractures. They are quite surely in the province of the neurologist. But I have run across a few cases of mixed or combined etiology, in which there was a definite contracture due to real fibrosis of muscle tissue from a wound, and to which a definite functional element was added, increasing the deformity. Here it had seemed best to have the functional portion of the contracture corrected first, then, with the patient's confidence obtained, proceed with the correction of the organic lesion in the usual manner.

The chief advantage claimed for this—the so-called Wolff method—of gradually stretching muscle contractures over other splint methods, is that it is always under the complete control of the medical officer. The hold cannot be relaxed or intermitted without his knowledge. The splints interfere with clothing and walking as little as possible, and finally, with ordinary skill in plaster technique, the hold should be more easily applied and the pressure more evenly divided than in any other form of apparatus.

CASE OF LEPTO-MENINGITIS OF OTITIC ORIGIN.*

By GEO. S. WELLS, M. D., Santa Barbara.

The occurrence of a meningitis of otitic origin is sufficiently rare to seem to me to be worthy of reporting, especially the one following:

Mr. R. H. D., of Lompoc, reported at my office August 28, 1918. Age 34. Occupation, meat cutter. Married and father of four healthy children. Parents living and well. Three weeks ago contracted heavy cold while out deer hunting, which was speedily followed by severe pain in both ears. For several days temperature had ranged at about 102° maximum, but had gradually decreased, though not to normal, for the whole

24 hours. Had never had any discharge from ears, though a very profuse and offensive discharge from the post nares. Pain about ears had been continuous and past few days had involved the whole head at times. His wife reported that the night before he had become violently delirious and had tried to escape from the house.

Examination of the ears revealed drums congested and bulging; canals markedly reddened; mastoids very sensitive; and marked rigidity of the muscles of the neck. Pulse 66. Temperature normal.

The drums were both anesthetized and incised and he was sent to the hospital with instructions to apply heat over both mastoids and irrigate the canals with normal salt solution. Late that evening temperature was 98°, pulse 48. Pain very much relieved. Instructed to prepare for operation next day.

August 29. Patient had a comfortable night. Stiffness of the neck much less noticeable. Temperature, 98°, pulse 56. He remained quite comfortable all morning and was taken to the operating room at 1 o'clock where we first opened the right mastoid which, though full of pus, showed no complications. On cleaning out the left mastoid we found the dura exposed above the knee of sinus. Gave no appearance of any extension from this exposure either above or into the sinus. The operation was completed in the usual way, packed lightly with sterile gauze, and dressed in the ordinary way. Though he had been three hours under the anesthetic the anesthesiologist called our attention to the improvement of his pulse. Smear made and specimen for culture taken during operation. Was restless through the night, though complained of no pain.

August 30. Patient looks bright and is entirely free from pain, though complained of head being sore and wanted extra pillow. Temperature reached 100.6° that day, which was the highest point reached while in the hospital. Pulse 68. After this the temperature ranged about 99° until September 2, when it became normal. The wounds were dressed September 2 and seemed to be doing nicely. Were clean and granulating nicely. The progress from that time until September 7 was uneventful, when he left the hospital and reported to the office for the dressings. Everything was progressing so nicely that on the 11th of September I permitted him to return home and to have Dr. Heiges complete the care. At this time both middle ears were dry and the mastoids granulating elegantly and clean.

On September 16th I was very much surprised to see him stagger in to the office supported by his wife. Examination showed a profuse discharge from the left mastoid and slight discharge from the middle ear. Right clean and nearly filled. Marked rigidity of neck muscles. Patient complained of intense headache. Tongue furred and foetid breath. Wife reported that he had been fine until 1:30 that morning. The evening before had eaten a hearty supper and been in high spirits all evening, but had awakened at

* Read before the Forty-eighth Annual Meeting of the Medical Society, State of California, Santa Barbara, April, 1919.

1:30 tossing with pain in his head. He was sent at once to the hospital and instructions given to prepare him for the operating room immediately. At 1:30 p. m., Dr. Ryan accompanying me, I again cleaned out the left mastoid carefully and the exposed dura, when cleaned of the granulations, seemed firmly adherent and of a healthy color. We could see no indication for further exploration, so decided to await development. Temperature was 102.2° on entering the operating room, and in the evening had dropped to 100.7°. Pulse 80.

September 17. Temperature 103 in the morning. No sign of chill. No pain in region of ears, but head throbbing. Tongue heavily coated and foetid breath. Bowels tympanitic.

The question now, as is usual in these cases, was: Has he meningitis or is he developing typhoid? I called for a Widal test and called Dr. Bakewell to examine him. Patient slept a great deal all day and in the evening felt much better.

September 18. Report from Widal negative. Patient at times restless, but did not complain of pain. No appetite. Temperature range 99.6° to 103.6°. Slept nearly all night. Left mastoid was dressed that morning and was doing nicely.

September 19. At 10 a. m. had chill, after which the temperature arose to 102.3°. Complained of pain in back and back of neck. Muttering delirium. Toward evening brightened up and felt better. Was very restless all that night until quieted by $\frac{1}{4}$ morphia.

September 20. Still very restless. Dr. Campbell was called in and asked to do a spinal puncture, at which time he drew about 25 c.c. of turbid fluid under pressure. This relieved the patient markedly. On consultation with Drs. Campbell and Bakewell that afternoon it was decided to open the base of skull for drainage. At 7:30 p. m. the wound was reopened and an entrance was made through the tegmen into the middle fossa, making a free opening. Instead of a free drainage we came in contact with a coagulum, quite a quantity of which was removed and a drainage tube inserted. Patient became restless again about midnight. Drainage next morning was slight. Patient gradually failed and at noon that day passed away.

Laboratory reports:

Smear from mastoids—Two cocci found.

Smear from culture—No growth.

Blood on first entrance:

Leukocytes, 7200;

Hemoglobin, 90%;

Polymor., 76%;

Lymphocytes, 23;

Monoauclear, 1%.

September 19—Same.

September 21—Leukocytes, 36200.

Culture from spinal fluid: Smear shows many diplococci, both gram negative and positive resembling meningococcus.

The apparent complete recovery after the initial

operation made us hesitate to enter the cranium. We also feel that had drainage been established at once on his return the results might have been different.

THE POSSIBLE RELATIONSHIP OF DENTAL ABSCESSES AND THE TOXEMIAS OF PREGNANCY.*

BY FREDERIC M. LOOMIS, M. D., Oakland, Cal.

I am aware of the saying of Abe Martin, recently quoted in the Journal of the American Medical Association, that the old-time doctor who always wanted to tap someone had been succeeded by a full grown son who wanted to pull everybody's teeth.

I know that dental abscesses have been held responsible for many undeserved evils; that there has been an epidemic of ill-advised extraction; and that the pendulum has commenced to swing the other way. But I know, too, and we all know, that there are daily recoveries from long standing disabilities following the deliberately considered extraction of abscessed teeth. However, with the exception of brief references in passing, notably in Edgar's Text and two papers by Mosher, I had been unable to find any direct discussion of the possible relationship of chronic dental sepsis and the toxemias of pregnancy until the important contribution by Talbot in Surgery, Gynecology and Obstetrics for February of this year.

Eclampsia remains the "disease of theories" and this paper does not attempt a solution. It does seriously advance a possible reason why of two apparently normal women, one develops a serious toxemia and one goes free; that is, why one breaks down under the normal overload of pregnancy, and the other does not; or, more exactly, why one possesses such a slender margin of eliminating or de-toxifying reserve that the added burden of pregnancy overcomes her.

All pregnant women bear a theoretically equal burden of elimination, except perhaps those who have twins, and in these the proportion of eclampsia is three times the normal rate. It has repeatedly been noticed that the woman who has an early toxemia, the type of vomiting which is not easily relieved, is likely to have the evidences of toxemia later. I have never yet heard an adequate explanation of post partum eclampsia and unless some outside factor, other than maternal or fetal metabolism be considered, these facts are now too hard to explain. DeLee himself in the Year Book for 1918 says he has "always held the suspicion that an infection will finally be found at the bottom of eclampsia." We know now that no infection is a wholly localized process but that from it are absorbed a greater or less number of toxins. These toxins must be destroyed or eliminated, and the liver, the kidneys and perhaps the thyroid are of course the chief agents. We know too that successful uncomplicated pregnancy is almost synonymous with successful elimina-

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tion. We do not cure eclampsia when we use the so-called Rotunda and Stroganoff treatments, but we so depress the nervous threshold that our patients are not racked by convulsions (which in turn produce more toxins) during the few hours preceding delivery, and at the same time we stimulate elimination. We do not cure eclampsia by delivery alone, but we try to reduce the overload before the renal and cortical edema has become so great that our patient dies from the retention of the substances, whatever they may be, that should have been eliminated.

Is it not reasonable to assume that the irritation of chronic sepsis may be one of the determining factors in lowering the ability of the liver and the kidney to carry their load? Unquestionably the elimination of the products of acute infection is injurious to the liver and to the renal structures, and the steady damage of years of elimination of the toxins of chronic sepsis must leave its mark. Talbot says, "it is a fundamental characteristic of all things in this world to wear out."

How frequent is dental abscess and what are the probabilities of absorption? At my request Dr. Walter R. Hughes of Oakland examined the films of 125 devitalized teeth, with root canals filled, and found 103 abscesses clearly apparent. Dental authorities state that from 50 to 85% of all devitalized teeth are infected, and repeated animal inoculation experiments have shown, by the production of lesions of almost every variety, notably of the heart, the joints and the kidneys, that these abscesses contain active organisms. There are many who believe that there is a constant entry of living organisms as well as of their products into the blood stream. "They are carried into the blood by passive entrance through the capillary walls, by growth through the walls of the vessels, by the leucocytes, and by the lymph channels. The deeper the infection is seated in the tissue and the greater the pressure of the accumulated bacterial products, the larger is the amount of absorption. Mucous membrane absorbs easily. An abscess enclosed by bone gives no chance for infiltration or extension; therefore the pressure is great and the bacterial products are absorbed readily." (Billings.) The possibilities for absorption in pyorrhea are evident when it is remembered that the average denture has a circumference of about 30 inches at the gum line. If the patient has pyorrhea with a line of only an eighth of an inch involved, there results an area of $3\frac{3}{4}$ square inches of infected tissue, where most active absorption can occur.

How about direct evidence? My attention to the question of dental sepsis in pregnancy was dramatically aroused by the following case:

I. Primipara of 27, 7th week. In bed, restless, nervous, constantly nauseated. Immediate improvement on injection of corpus luteum and regulation of diet. Improvement lasted only a week and thereafter for 6 weeks every kind of treatment was a failure. Repeated examinations

eliminated every probable cause of nausea. The uterus was forward in good position. The patient was able to command every attention money could buy and finally under skillful nursing improved, but was always toxic and spent about half her time in bed. As she approached the eighth month, the systolic pressure gradually increased to 156, she became edematous and I was only awaiting the appearance of albumen or a further rise of pressure to interrupt pregnancy. One night, by the grace of Providence, one of her apparently perfect and beautifully cared for teeth commenced to ache. Pain increased till 36 hours later when a dentist was called at night, extracted the tooth under local anesthesia, and a quantity of foul material was liberated. In eight hours her blood pressure dropped 30 points, her edema subsided and she went on to term with a normal delivery.

Among other instances, the following are submitted as suggestive.

II. Seen in consultation with Dr. Dudley Smith.

About a year ago went through a pregnancy spent mostly in bed under excellent care. Severe asthma, nausea, intense intercostal pain, headache, edema and finally premature rupture of the membranes and loss of the child. No laboratory or clinical evidence of lues, and all other examinations practically negative.

In January, 1918, missed one period and again suffered so intensely with intercostal pain and nausea that relief was imperative. In the absence of her physician it was insisted that her teeth be X-rayed. The teeth had been examined every few months for years by a competent dentist who hooted at a possible abscess. Nevertheless the abscess was found, the tooth was extracted with two attached abscesses and both the pain and nausea stopped within 12 hours. No examination for pregnancy had been made and the patient proved not to be pregnant, but had simply been toxic and from then on has made a continued improvement. Suspicious tonsils were also removed and I believe it a reasonable supposition that her next pregnancy will be different.

III. Hyperemesis; seen in consultation with Dr. Ergo Majors; constant emesis of everything, including water; in hospital. Six large gold crowns. X-rays show four enormous abscesses. Incomplete report as extraction not yet done.

IV. Patient of Dr. Majors: Primipara, $4\frac{1}{2}$ months. Very severe headache lasting for 3 weeks, with constant nausea. Blood pressure gradually increased to 145, with heavy trace of albumen. Five abscesses found, with unbelievably rapid recovery from all symptoms, including albuminuria, within 12 hours after removal. No recurrence. At no time had toothache or other local symptoms.

V. Hydramnios; IV-para, constantly toxic, condition finally requiring rupture of membranes. Four abscesses found, but report not yet complete.

VI. Primipara with no symptoms, no clinical or laboratory evidence of lues or nephritis, but gradually increasing blood pressure to 165. No albumen, edema or other evidence of toxemia. Labor at term, after cessation of all movement, with still-born child. Mouth a mass of pyorrhea alveolaris; blood pressure remains constantly high 3 months after delivery, while pyorrhea and abscesses are treated.

VII. II-para. Eclampsia and loss of child at term. Never any mouth symptoms but a very large abscess removed during the fourth month of this pregnancy. Now looks and feels better than ever, and is apparently perfectly normal at the 6th month.

VIII. II-para. Hyperemesis. Corpus luteum by hypo and all other treatment ineffective in overcoming nausea which continued till an abscess was opened and drained at the 5th month, when there was prompt improvement.

I am now investigating the cases of hyperemesis, preeclamptic toxemia and eclampsia on my books and so far have not found one without definite dental trouble except one case of pernicious vomiting seen in consultation with Dr. Clarence Page, where X-rays were negative. Dr. Edith Brownsill of Berkeley has kindly investigated 6 of her cases and 5 of the six have definite evidence of dental sepsis. Dr. Anderson, neurologist, of Oakland, reports to me two carefully worked out cases of post-partum insanity, relieved by the removal of abscesses, recovery occurring almost over night; plain cases of toxic psychoses wherein not the strain of pregnancy but the strain of chronic sepsis was the fundamental cause, the pregnancy being the minor factor.

So much for evidence—not all conclusive but so highly suggestive that I think we must pay attention to it. I have reached the point where every new patient of mine who has any devitalized teeth must have an X-ray of them or get another doctor. And to my surprise, I am finding not opposition, but co-operation. In fact I find that many dentists are in as great need of education as are the patients, and are less willing to learn. I have learned that the dentist who advises against X-rays because he knows "those teeth are all right" is unsafe and wrong. No one knows that a devitalized tooth is right in the absence of proof, and we are learning that the presumption is the other way. The best men in dentistry are frankly troubled and distressed about their future. They are as reluctant to extract apparently sound teeth as are their patients to have them, but there is growing the conviction that treatment (filling root canals to save or crown a tooth) is not only futile but a menace.

In the presence of definite abscesses I have advised extraction in every month of pregnancy up to the 9th under local or general anesthesia and have not yet had an acute increase of symptoms nor a threatened termination of pregnancy. I think the occasional reports of trouble are due to vigorous curettings, which of course make trouble and should be avoided. If I am asked,

as I always am, if there is any danger in having this tooth out now, I think I am now justified in saying (with an undoubted abscess present) that there is less danger in having it out than having it in.

I am not carried away with my subject. I do not believe that a dental abscess is necessarily the cause of a toxemia just because it is present. I do not know how many patients who go through perfectly normal pregnancies have mouth infections but the number must be large. I do know that so far I have found but one toxic patient (Dr. Page's) who did not have one or more infections, and Talbot of Massachusetts reports that in 97 consecutive cases of toxemia, every one without exception showed chronic dental sepsis.

We have for years told our patients to keep their teeth clean during pregnancy, and to be examined by their dentists—that is to keep the tops of their teeth cleaned, to avoid caries. And now, until I am otherwise persuaded, I believe we must go further and see that the hidden dangers at the other ends of the teeth are brought to light.

PATHOLOGIC INDICATIONS FOR CHOLECYSTECTOMY.*

By ANDREW STEWART LOBINGIER, M. D.,
F. A. C. S., Los Angeles.

A singular divergence of opinion amongst surgeons of large experience continues to appear on the indications for cholecystectomy. If one were to venture to find a reason for this confusion it would probably be seen in a too broad generalization concerning the pathology justifying the removal of the gall bladder. For instance, one authority advises a cholecystectomy in every case of inflammation because the patient makes a more prompt and uncomplicated recovery.

Another, though formerly prejudiced in favor of cholecystostomy, now prefers cholecystectomy and would make the one exception that of pancreatitis.

Still another recommends cholecystectomy in all cases unless the patient's condition is bad.

Whilst another authority, claiming an experience of 2000 cases of disease of the gall bladder and ducts, believes cholecystectomy to be the operation of choice.

These illustrations of settled opinion without a basis of pathology to justify it might be multiplied indefinitely; but the ingenious reasoning of one authority strikes us as most unique: He determines the presence of free HCl in the stomach; if it is absent he removes the gall bladder; if it is present he does a cholecystostomy.

It is obvious that these views do not represent the judgment of most of the ablest authorities on this subject; but one is astonished in reviewing the opinions of some of them, to find how loose and indefinite is their statement of the indications for cholecystectomy. Because of this indefiniteness, and because very serious results may follow the removal

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of the gall bladder where the pathology would forbid it, we should feel it worth while to consider the indications for cholecystectomy which will bear the analysis of real pathology and have justification in the end results.

The first operation for the removal of the gall bladder was done by Langenbuch in 1882.

In 1902 Moynihan in his address before the Yorkshire division of the British Medical Association on "A Series of Cases of Cholecystectomy" gave nine indications for the removal of the gall bladder. In 1909 in a contribution published in the *Annals of Surgery*, Vol. 50, page 1265, he described a pathologic condition of the mucosa, with colored illustrations, which he thought to be associated with sand-like granules of cholesterolin and tarry, stringy bile, and for which he recommended cholecystectomy.

This was the condition discussed later at some length by MacCarty as strawberry gall bladder, in a paper published in the *Annals of Surgery* in 1910 entitled "The Pathology of the Gall Bladder and Some Associated Lesions"; and more recently considered in a paper on "The Frequency of Strawberry Gall Bladder" published in the same journal in February of this year.

Moynihan in later publications has added this pathologic condition as a tenth indication for cholecystectomy and MacCarty is in agreement with this conclusion.

It is obvious that the pathology in the gall bladder and ducts requiring surgery is almost wholly due to some former or some present infection. If this infection has been followed by the formation of gall stones there is usually a persistent irritation which eventually will result in destructive changes in the walls of the gall bladder and ducts. It may be a thickening of the mucosa, or an ulceration or deposit of connective tissue in the reticulum between the muscularis and mucosa. Ulceration may be local and discrete or disseminated and phlegmonous. We may find stricture and cysticus or hyperplasia and contraction; or if the empyema be acute and associated with intense œdema, shutting off the cystic arterial current, partial or complete gangrene will result. All of these conditions have been observed by surgeons of experience and there should be no doubt in one's mind as to the positive indication for cholecystectomy, with such pathology. But there are other infective conditions, which may be termed border line, involving the walls of the gall bladder and common and hepatic ducts which may, and usually do, call for a proper deliberation to consider the merits of the two procedures of drainage or excision. In a paper before this society in 1909, we reported a series of cases studied and operated for chronic cholecystitis without stone, which had thin blue gall bladders under high tension and which on pressure emptied very slowly. They were found in women who suffered from enteroptosis and it was believed that the cystic duct was too sharply angled at its emergence into the common duct to allow the gall bladder to empty freely. As a consequence the bile content was thick, tarry and ropy in consistency, and as we then believed, the mucosa, which in most of these

cases was reddened and elevated in little papillæ, was congested by the retention of stale and condensed bile. These patients were not benefited by drainage of the gall bladder, no matter how prolonged. They were improved for a time, but relapsed into the same condition of tenderness, colicky seizures, and digestive disturbances for which they had sought surgical relief.

In the belief that through angulation of the cystic duct and obstruction to the choledochus, this poor emptying of the gall bladder was brought about, we suggested in a letter to Sir Arthur Mayo-Robson, written March, 1909, doing an anastomosis between the gall bladder and duodenum, inasmuch as cholecystostomy had failed to relieve these cases. His reply was received the week after I read my paper before this society. He said: "I am well acquainted with the form of gall bladder you describe and have found it not infrequently associated with interstitial pancreatitis. In a number of these cases I have performed cholecystenterostomy with marked benefit and without recurrence of the trouble * * * I think it will be found that in most of these cases the obstruction is in the head of the pancreas and I feel sure that cholecystenterostomy is the best procedure."

In view of the later investigations of this interesting condition at the Leeds and Rochester clinics it would appear that what I was dealing with with such indifferent success by cholecystostomies was what now masquerades under the mellifluous title of "strawberry gall bladder." However, we are not disposed to concede even now an etiology essentially different from that held in our argument before this society in April, 1909. These patients are sallow, constipated, undernourished, with pendulous abdomens, drooping shoulders, cold clammy hands and feet, and suffer a gastro-intestinal complex pointing to wretched assimilation and metabolism. That the retained bile in the gall bladder and hepatic ducts is a reasonable source of focal infection, we believe there is abundant pathologic evidence, and we have an added evidence of the anatomic cause for this retention, in the relief afforded in these cases by a cholecystectomy, which removes the heavy and infected gall bladder and allows the hepatic ducts to discharge their bile freely through an unobstructed choledochus.

We may epitomize the pathologic indications for cholecystectomy under eight headings. These are not absolutely distinct entities; they are more frequently conditions of a correlated infective pathology, one condition being a sequence of another.

1. *Gangrene*: The indications for removal are of course positive. The fact that often these cases are not diagnosed until the patient is lethally toxic does not change the issue any more than it would in a gangrenous or ruptured appendix. The diagnosis should be made early, and operation be immediate.

2. *Primary Carcinoma*: The indications for cholecystectomy are here likewise positive. An early diagnosis may be difficult. A liver metastasis may be well advanced before the characteristic painless cholemia may become evident.

In Papilloma the evidences of these growths—

they are commonly multiple—may be entirely lacking until the gall bladder is opened for the removal of stone and for drainage. Occasionally they are found associated with the chronic granular condition in "strawberry gall bladder."

3. *Cysticus*: A condition due to a strictured cystic duct, which cannot be successfully treated except by removal of the large and distended gall bladder. This indication is quite as positive as in the preceding instances. It should be remembered that the stricture is most commonly due to an impacted stone which should always be looked for. The small percentage of cases due to ulceration of the cystic duct from other causes may be considered negligible, though not changing the indications for cholecystectomy.

4. *Ulceration of the Cystic Duct from Impacted Stone*: As already intimated, a long resident stone in the cystic duct usually results in ulceration and the formation of fibrous tissue. When the stone is removed and the gall bladder drained this fibrous tissue contracts and may, and usually does, terminate in an absolute stricture with the development of a cystic gall bladder. Had the gall bladder been removed instead of drained when the pathology in the cystic duct was recognized, the patient would have been spared much pain and a second operation.

Emphasis should be given to the positive indication for the removal of the gall bladder whenever a round nonfaceted stone is found fixed in the cystic duct.

5. *Empyema Without Cholangitis or Pancreatitis*: There may be some difficulty in determining that a septic gall bladder is not associated with infective extension into the ducts in the liver. The clinical evidences and the history will aid very considerably in differentiating, but if doubt exists the gall bladder should be drained and the patient informed that a second operation for removal of the gall bladder when the septic condition had abated would be necessary. There is certainly as much justification for a two stage operation here as in extreme cholemia from impacted stone in the choledochus. Both these conditions result from neglect, either from unjustifiable procrastination on the part of the patient refusing operation, or an uninformed physician who does not realize the hazard of his ignorance.

It is less difficult to diagnose the pancreas complex and obviously pancreatitis is always a contraindication to cholecystectomy. Robson years ago proved the advantage of drainage of the gall bladder in chronic pancreatitis.

6. *Contracted Gall Bladder with Fibrous Changes in Its Walls and Destruction of the Mucosa Without Pancreatitis*: We very frequently meet with this condition. It may be due to cholelithiasis or an old empyema or a ball-valve obstruction of stone in the common duct. Pathologically, the gall bladder has become greatly thickened and may be a constant source of focal infection. At least it is a useless appendage and may become a potential menace for malignancy. Unless the pancreas has become chronically inflamed—and it may become so if the obstruction

in the common duct is near or at the ampulla—such a gall bladder should be removed.

7. *A Thickened Gall Bladder Adherent to Neighboring Organs as the Pylorus, Duodenum and Colon*: A pericholecystitis with adhesions always signifies a precedent cholecystitis from sepsis, typhoid or stone, with more or less destructive changes in the wall and lining of the gall bladder. We may free the adhesions, but if they are dense and extensive they will recur, and a cholecystectomy is the only measure which will definitely relieve the patient's digestive symptoms. There is no chronic condition of the gall bladder attended with a more disturbing complex, nor one more happily relieved by a carefully done cholecystectomy, with omental covering to all denuded surfaces.

8. *So-called Granular or Strawberry Gall Bladder (Cholecystitis Catarrhalis Chronica of MacCarty)*: We have already discussed this condition, its etiology, pathology and treatment. There is no pathology of the gall bladder, however, where the surgeon of limited experience is more likely to go wrong than in the determination of what is and what is not a granular catarrhal gall bladder. We find so many stages of this pathology that the clinical picture will in many instances be the safest guide to the choice between drainage and removal.

In conclusion, it should be remembered there are certain conditions in which cholecystectomy is distinctly contraindicated.

1. One of these is in simple cholecystitis with or without stone, where the mucosa of the gall bladder and cystic duct is substantially normal.

2. Another is in cholemia from impacted stone in the common duct. The writer years ago urged that this condition should be relieved by a two stage operation—first drainage of the gall bladder to relieve the cholemia and reduce the swelling in the choledochus and later removal of the stone. If the latter has been a long time in the duct a stricture is a possible sequel. Cholecystectomy is obviously not to be thought of here.

3. Again, in obstruction of the common duct at the Ampulla of Vater, causing the bile to back up into the pancreatic ducts, drainage of the gall bladder, instead of its removal, is plainly indicated.

4. Finally, in septic cholangitis, where drainage is the cardinal principle of treatment, cholecystostomy is clearly the operation of choice and cholecystectomy, even if eventually necessary, must be done after the septic phase has completely passed.

It may seem irrelevant here, but the more we see of infections in the right hypochondrium, in the gall bladder, hepatic and pancreatic ducts, the more deeply are we impressed with the importance of the role of the internist in preventing those vices of metabolism and elimination which lead up so directly to an acute and chronic inflammatory pathology which demands ablatory surgery.

And we should not only endeavor to prevent these pathologic complexes, but when we meet with them, we shall do well to carefully prepare our patient before operating; and after operating, follow out a consistent plan of encouraging hepatic elimination.

ACRIFLAVINE.*

A NEW GONOCOCCICIDE.

By JOHN C. SPENCER, M. D., San Francisco

At the suggestion of Ehrlich, Benda, in 1912, in search of a remedy for combating Trypanosome infections, evolved a coal-tar dye which he called "Flavine."

Later investigators, seeking a substance which should, according to Geraghty, quoted by Davis and Harrell, combine "rapid diffusibility and penetration of tissues," out of a series of more than 200 preparations, chiefly triphenylmethanes and synthetic substances related to the sulphonephthaleins, settled upon a salt which they named Diamino-Methyl-Acridinum Chloride, known by the trade name of "Acriflavine."

Of this series, although highly germicidal in watery solution, almost all lost their power in urine. Out of the number, four were found to be "antiseptic and diffusible," Acriflavine being the most so.

Harrell found that an Acriflavine solution injected into the urethra of a dog, the animal being immediately killed, and its urethra and bladder being immediately removed, had penetrated to the muscular layer.

In seeking a urinary antiseptic primarily, Davis and Harrell selected Acriflavine for experimental work, clinically. Harrell was led in the direction of its effects as a gonococcicide. He found, (1) that a dilution of 1-300,000, in a protein-containing medium, inhibited the growth of gonococci, being 600 times stronger in this respect than Protargol.

(2) Its solution will penetrate the mucosa and submucosa of the urethra and bladder.

(3) It is non-toxic and only slightly irritating to the mucous membrane.

(4) The average duration of a gonorrhea with its use, is distinctly shorter than with the usual methods.

(5) In an occasional case it appears to be without effect upon the course of the disease.

Conclusions. Harrell has frequently had the organisms disappear from the discharge following a single injection, not to return during its subsequent course. In a majority of cases they have disappeared after three injections.

In his first series, consisting of fifteen cases, the average duration of treatment was a fraction over five days. The average number of treatments was a fraction over seven.

In cases of involvement of both anterior and posterior urethra, the posterior improves before the anterior; the first urine will appear cloudy, the second and third clear after treatment.

Cases with undue frequency and nycturia will often be relieved of these symptoms after one, and nearly always after the second or third injection.

In Harrell's fifteen cases the duration of the infection varied between two weeks and two years.

When, after treatment had been begun, recurrences took place, treatment was not resumed until the lapse of from five to seven days, then usually being followed by prompt results. In an occasional case the treatment was without effect.

All of the above findings are deduced from cases which were able to be followed for several weeks after treatment was discontinued.

Since acquiring a supply of Acriflavine, it has been my fortune to have had a very limited number of cases upon which to use it and observe its effects. Probably the most striking result from its use, as it impressed me, was its remarkably prompt germicidal effect. The organism disappeared after the first, or at most the third injection. One patient did not tolerate it well, even in a dilution less than that recommended, viz., 1-1000, necessitating falling back upon the silver-proteid preparations. Another patient, a hard-working mechanic, not overly intelligent in his care of himself, improved so promptly, that he withdrew from observation. Later, I learned that there had been a recurrence, which had been complicated by an acute epididymitis.

The very few remaining cases do not warrant me in drawing any broad conclusions. Back of my own very limited experience in the use of this gonococcicide lies that of Davis and Harrell, with their surprising results, coupled with their verification, in my own hands, have stimulated me to seize with avidity a remedy for the treatment of gonorrhea, which is almost revolutionary as regards time, and seemingly a striking swing-back of the pendulum toward purely local treatment in the therapy of this distressing and usually obstinate disease.

References.

- Benda: *Ber. d. deutschen med. Gesellsch.* 1912, vol. 55, p. 1787.
 Browning, Gulbransen et al: *Br. Med. Jour.*, vol. 1, p. 73 and p. 78. 1918; *Br. Med. Jour.*, vol. 2, p. 70.
 Ligat: *Br. Med. Jour.*, vol. 1, p. 78. 1917.
 Bond: *Br. Med. Jour.*, vol. 2, p. 6. 1917.
 Hewlett: *Lancet*, vol. 2, p. 493. 1917.
 Drummond and McNee: *Lancet*, vol. 2, p. 640. 1917.
 Morgan: *Lancet*, vol. 2, p. 256. 1918.
 Davis and White: *Jour. of Urology*, vol. 2, p. 107. 1918.
 Davis and Harrell: *Jour. of Urology*, vol. 2, p. 4. 1918.

135 Stockton Street.

Whether a hospital is a Class A institution or a Class D institution will be information that patients may learn for themselves before choosing a hospital in the near future, if the occasion requires.

The shortcomings of hospitals have been scrutinized by superintendents and trustees of institutions all over the country with the result that a demand has arisen for standardization. A. R. Warner, M. D., superintendent of the Lakeside Hospital, Cleveland, Ohio, declares that the defects of hospital management and administration are now fairly well known to those directly interested. He writes on hospital standards in *The Modern Hospital*.

The organization of some hospitals has been more highly developed than others. The service of some surpasses that of other institutions, while in many hospitals the facilities for diagnosis and treatment excel.

Standardization becomes a necessity, Dr. Warner asserts, because the public will not tolerate the deficiencies if they can be recognized. The fact that superintendents and hospital directors are aware of defects imposes upon them the duty of promoting higher standards in all that pertains to the care and treatment of the sick. Dr. Warner voices a warning that the hospitals themselves must accomplish this standardization before the public at large learns of some of the existing defects of various institutions.

*Read before the Forty-eighth Annual Meeting of the Medical Society, State of California, Santa Barbara, April, 1919.

THE OBSTETRICAL SOCIETY OF SAN FRANCISCO: A REMINISCENCE

By DOUGLAS W. MONTGOMERY, M. D., San Francisco

When first I came to San Francisco I was asked to become a member of the San Francisco Obstetrical Society, not because I was interested in obstetrics but because I was then working at pathology. Previous to my joining, it had fallen into desuetude, and the reason for this was characteristic and amusing. One of the most prominent men in diseases of women of that day, was an able, bad-tempered Irishman, who managed to quarrel with everyone in the same line of work as himself. On his demise the secretary sent out notices of his death saying that there would be a meeting to frame condolences to the family, and at the same time measures would be taken to resuscitate the society. Subsequent to this propitious reopening announcement, we had many pleasant gatherings, and the crowning point of the evening was always the supper, and at one of these the late Dr. Harry Gibbons told the following story:

A traveler, while crossing the prairie in the great Southwest, became constipated, a not unusual eventuality with travelers. There were no towns, and dwellings were scarce and drug stores were not even to be hoped for. Finally he reached a wretched shack on the plains, but none of the men were at home. The traveler's condition became so desperate that he finally asked the sole occupant of the dwelling, a woman, if she knew of any relief. "Oh yes!" she said as she handed him a lead musket ball, "Swallow that, but be sure not to lose it. It has been in the family a long time."

This is not the first time this primitive means of alleviation has appeared in medical literature. It is mentioned by Burton in his charming book, "The Anatomy of Melancholy," a book which Samuel Johnson used to say was the only one that ever got him out of bed an hour before his usual time of arising.

The Obstetrical Society was composed of a remarkable group of men, shrewd and able in their work. Clinton Cushing was the foremost abdominal surgeon of his day on the Coast, and would have made his mark in any country. George Chismore was leaving gynecology, in which he had made a local reputation, and was entering genito-urinary surgery, in which he was to make a national reputation. Charles Blake and Wagner, whom we used to call "Wagner of the Mission," were excellent, trustworthy practitioners, and W. F. McNutt was then at the height of his very large practice. I was then a young fellow, fresh from the laboratories and large clinics of Europe, and the men composing the Society were large enough and open-minded enough to receive what I had to impart. I, on the other hand, had much to learn from them of things that no laboratory would or could teach. In many ways the practice of medicine is like hunting. The causes of diseases are multitudinous,

and are as elusive and deceptive as the most cunning of game animals. The hunter's patience and observation of general and particular details, find excellent employment by the physician. Furthermore, the broad general lines of medicine remain the same in *saccula saeculorum*; and, most important of all, the practice of medicine has always been better than the theories which seem to govern it.

Most of the men composing the Society were from the Middle or Eastern States and they had many a tale to tell, similar to that of Doctor Gibbons above related, pertaining to the era of primitive medicine that preceded in this country the establishment of the Johns Hopkins Hospital.

Doctor Cushing, I believe, graduated from Jefferson College and at first moved out to Ohio, which was then out west. At one of our suppers he told the following, illustrating the shrewdness and resourcefulness of the backwoods doctor:

It was a case of retarded labor. The head refused to engage in the pelvis, and the young doctor in attendance, a graduate of a reputable institution, was desperate. The family asked him if he would consult with an elderly practitioner of the neighborhood and he assented.

After seeing the patient they retired to a log in the back-yard to consult. After whittling a little with his jack-knife, and copiously expectorating, the old man said, "Well, doctor, I'd quill her." The doctor acknowledged that he did not know what "quilling" meant. The old man showed him. He took a large goose quill, and cut off the very tip. With this he had a catheter with a rounded point, which he introduced into the bladder, and drew off the urine.

As a further explanation of the above incident it must be remembered that between the old apprentice system and the present practical system, there was an interval in medical teaching in this country in which the student did not get any practical instruction, even in mid-wifery, and that the young man mentioned in the story was not to be blamed for not recognizing the cause of the retarded labor.

Shortly ago, on a visit to Chicago, I related this story to Dr. W. A. Pusey. I said that I did not know of what other material a catheter could have been improvised. He then told me that in one of his visits to the country a man showed him a catheter made from an umbrella rib. These ribs are grooved. The man cut a rib square off, and then fashioned a tip out of lead, which he attached to it. This, the inventor said, gave satisfactory results, as, on the instrument being introduced, the urine trickled down along the groove as in a gutter.

Doctor Cushing had a remarkable career. When the war of the rebellion broke out, although he was in the United States service on active duty, he did not know of the disturbance until it was well along in its third year, and approaching its end. He had joined the American

Navy, and was on a vessel stationed off the mouth of the Congo, watching for slavers. Afterwards, for years, he enjoyed a large general practice in Oakland. When past the acme of life, he was appointed Professor of Gynecology in the Lane School of Medicine, and visited the European clinics, especially those of England. At a time when, because of the new antiseptic methods, the older men in surgery were going down like ninepins in a bowling alley, he swept forward to becoming the chief abdominal surgeon on the Pacific Coast. Besides his age, he had yet another handicap. Medicine, and principally surgery, is much dependent upon commerce for its eminence. As a rule the large commercial centers are also the medical centers. San Francisco in 1886 was declining; Portland, Seattle and Spokane on the North, and Los Angeles in the South were cutting into its trade. In spite of this Cushing's sphere of influence for many years grew wider and wider.

Chismore was another example of a man changing his work late in life. As a boy he was a sailor, then a miner, then a dentist, and then a contract army surgeon. After leaving the army he took his degree in the Lane Medical College and entered general practice, leaning decidedly toward gynecology. Fortunately, through medical politics, he lost his place in the California Hospital for Women, and then bent his energies to genito-urinary diseases, in which he achieved a great and deserved success. A gentler, more honest, more straightforward nature never existed. His tales of his early life in Alaska were the delight of every company he was in, and were the especial delight of that charming story teller, Robert Louis Stevenson.

Everything has its terminus, even medical societies, and the Obstetrical Society of San Francisco was no exception. The men either lost interest or dropped out, or other societies and combinations engaged their attention. Doctor Cheney says that the finishing touch was the Last Supper given in my home; it may be he is right. At any rate the society passed into history a good many years ago, not, however, without having furnished much in instruction and much pleasure to its members.

323 Geary Street.

ABDOMINAL WAR WOUNDS.*

By REA SMITH, M. D., Los Angeles.

Penetrating wounds of the abdomen causing visceral injury were as a rule fatal on account of the lack of transport, and delays in getting the patient to the operating table. At Evacuation Hospital No. 114, we received patients from 6 to 72 hours after being hit. Many of the cases with abdominal wounds were moribund either from hemorrhage or from peritonitis already well developed.

If any one change could be suggested to better conditions in war for men with abdominal wounds,

it would be a special line of transportation, with rapid passage through forward stations and triallage.

Machine gun bullet wounds were usually from the front, and the patients were not unlike the patients that we are all accustomed to see in the accident surgery of civil life. It is not my purpose to take up your time with wounds of the solid viscera, which it was necessary to treat there as here with due regard to hemorrhage shock.

Intestinal perforations were as a rule multiple. Our policy was to do as little surgery as possible; rapidly sewing up the perforations and resecting only when absolutely necessary on account of damaged circulation or extensive injury to the intestinal wall. It was necessary, however, to search carefully for all wounds in the intestines, and not be satisfied by finding and closing one or two.

Wounds made by shell fragments were usually in the back, as soldiers dropped on their faces when they heard a shell in the air or when their position was being shelled. The greatest surprise was at the frequency with which the shrapnel was arrested and turned in its course by the parietal peritoneum. It was the rule rather than the exception to find that shrapnel had gone to the peritoneum and been deflected by it, rather than that it had gone straight through. I saw several cases in which the missile had gone through the ileum, carrying a block of bone its own size and shape with it, and had then been deflected down into the pelvis without wounding either the peritoneum or bladder.

These wounds were accompanied by a retroperitoneal hematoma, usually dissecting and extensive, and I think on that account largely the differential diagnosis between penetrating or non-penetrating wound was made most difficult.

The peritoneal irritation incident upon its being loosened from its attachment and stretched by accumulated blood, gave all the signs of peritoneal irritation due to infection. We had rigid muscles of the anterior wall with great tenderness, and the peritoneal snap in the pulse.

Add to that the localization of the foreign body by the X-ray at a point that is palpably intra-abdominal, but that has become extra peritoneal by the encroachment of the hematoma on the peritoneal cavity, and dullness in the flank due to the confined blood, and a picture is presented that will force almost any abdominal surgeon to open in front. Many of these patients were opened and clean peritoneal cavity found. The added shock of laparotomy did not help the patient's chances of recovery. While it was a simple procedure to excise the wound of entrance, remove the foreign body if quickly available, if not to drain the wound, and make the patient safe for transportation, and more careful study at the base.

I did not think it possible to have signs and symptoms of visceral abdominal injury simulated so closely by any extra peritoneal lesion, as I saw over and over again. And I have presented this small paper to you to make that one point that may or may not be of value to you at some time in the surgery of civil life.

*Read before the Forty-eighth Annual Meeting of the Medical Society, State of California, Santa Barbara, April, 1919.

Book Reviews

General Surgery. By Albert J. Ochsner, ed. (Practical Medicine Series.) Volume 2. 624 pp. Illustrated. Chicago: Year Book Publishers. 1919. Price, \$2.50.

Anesthetics, analgesics. X-Ray, radiumtherapy. New instruments. Asepsis and antisepsis. Infected wounds and their treatment. Operative technic. Amputations: Wound healing and pathologic interventions. Shock. Gas gangrene. Tetanus. Anthrax. Malignant tumors. Blood vessels. Bones. Joints. Nerves. Skull and brain. Face and mouth. Neck. Thyroid. Mamma. Chest. Heart. Abdominal surgery—general. Peritoneum and mesentery. Stomach and duodenum. Intestinal surgery—general. Intestines. Veriform appendix. Rectum and anus. Hernia. Liver. Gall-bladder and bile-ducts. Pancreas. Spleen. Kidney and bladder. Spine. Upper extremity. Lower extremity.

Pulmonary Tuberculosis. By Maurice Fishberg, Clinical Professor of Medicine, New York University and Bellevue Hospital Medical College. Second edition, revised and enlarged. Lea and Febiger, Publishers, 1919.

The first edition of this work was extensively reviewed in this Journal in the July number, 1916. In the present edition two new chapters have been added, one on pleurisy, the other devoted to differential diagnosis. A few new paragraphs have been added to a consideration of pneumothorax and the matter incorporated into a separate chapter on the subject. Aside from these additions the subject matter remains much as it appeared in the first edition. A few new paragraphs have been added to chapters here and there, notably a page on influenza complicating tuberculosis. The general recognition of influenza as a factor in the reactivation of latent tuberculosis seems to the reviewer to have justified a more extended consideration of this important subject. To those not in possession of the first edition of this work the book will prove of value as a practical treatise on the subject.

G. H. E.

Health Officer. By Frank Overton and Willard J. Denno. 512 pages, illustrated. Philadelphia and London: W. B. Saunders Company. 1919. Price \$4.50.

This book commends itself particularly to every person engaged in public health work, especially to the physicians to the community and who, because of other duties, cannot give time or attention to the latest custom and procedure in all the activities in which a health officer should engage.

The chapters dealing with "the public and the health officer," "the physician and the health officer," and epidemiology and the management of communicable disease, if read by every physician and surgeon engaged in active practice, would bring about in many communities a better and closer relationship between the physician, the health officer than exists at the present time. The book gives to the public health worker in a concise and practical manner the facts of importance regarding the communicable and miscellaneous diseases that must be reported. The chapter on nuisances, sewage disposal, as well as those chapters dealing with records and the code of New York, are particularly valuable to the suburban and rural districts where only a skeleton organization exists to enforce or promulgate health work. Generally speaking, the book serves the public health worker as a guide and fills a void found in most works on sanitation and hygiene.

W. C. H.

Rules for Recovery from Pulmonary Tuberculosis. By Lawrason Brown. Third edition, revised. 192 pp. Philadelphia and New York: Lea & Febiger. 1919.

The fact that this little volume has come to its third edition is proof enough that the public appreciates and values this contribution to their knowledge of tuberculosis.

Dr. Lawrason Brown is a physician well qualified by experience and skill to write a monograph on treatment addressed directly to lay readers, and in doing so he has conferred a favor not only upon those who are ill with pulmonary tuberculosis, but also upon their medical guardians. For we must remember that medical works of this class written for lay readers are successful only when they bridge over gaps in medical education left by the pedagogical architects who have the building of medical curricula.

L. S. M.

Sex and Sex Worship. By O. A. Wall. 607 pp. Illustrated. St. Louis: C. V. Mosby Company. 1919.

This stupendously laborious work with its 372 most remarkable illustrations at first gives the impression that life is too short for its study. One hesitates and then decides to glance over it. But soon one is interested, and then fascinated. The author has collected an enormous number of historical facts demonstrating most peculiar kinds of worship, religious ceremonies, amongst them animal worship and revolting sexual sacrifices that formed sacred and venerated parts of various religious beliefs. In his preface he hopes for a time when "all that is fantastic, irrational, unbelievable, is eradicated from our faiths;" but we do not know what he thinks would then become of all the various religions.

The chapter on modern religions emphasizes the most ancient truth that "orthodoxy is my doxy, heterodoxy or unorthodoxy is the other fellow's doxy." Of course, Wall is not free from some orthodoxy of his own, and sometimes he lets his phantasy roam a little. For instance when he holds that various of the celebrated windows in different parts of the world are made to represent the yoni (vulva), it may appear to us somewhat far-fetched, though the author may know more about it than we realize. When he says "suppression of prostitution will never be possible" he certainly contradicts the excellent results that were obtained on paper by our modern reformers, and though history is on his side in regard to suppression, we must hope that prostitution will disappear when its social causes will also have disappeared.

We may be able to agree with him when he says that masturbation "is a bad habit, and a man would do well to avoid it, but it is not to be worried over if one cannot refrain from it," but he certainly goes too far when he adds: "If we eliminate the superstitious dread of sin, then masturbation is the most rational, the most effective, and the least harmful mode of gratifying sexual instincts, except coition with a wife." It is a part of his doxy that "Monogamy, based on the equality of the woman with the man, is the highest type of sexual relationship." One of the best chapters, and one that seems somehow out of place in the work itself, is the one entitled, "Is There an Immortal Soul?"

The book will be appreciated by all scholars, and we hope that the enormous amount of literature digested and study applied, will also be appreciated.

V. G. V.

Correspondence

PECCAIVIMUS

To the Editor:—

One of the things over which I have lost patience with newspaper men is the reporting in the press: "John Smith died at the Blank Hospital following an operation for appendicitis." Now, John Smith came into the hospital with a ruptured appendix, perhaps 24 hours old, distended abdomen, advanced peritonitis—incision was made, pus and gas flew into operators' and nurses' faces, boiled over on to the floor—death in 12 hours after.

Papers announced next morning to the public that John Smith died at the Blank Hospital FOLLOWING an operation for appendicitis. Now I put it down to the fact that the people publishing this had no interest in the affair and did not blame them, only expostulated with them and reasoned with them that it would scare others out of operation until it would be too late, as in case of John Smith. NOW, I read in the California State Journal of Medicine that two people DIED FOLLOWING OPERATIONS, and no doubt they did, no one disputes this; but did the OPERATION kill them, or would they have died anyway, and did they take the chance of operation saving them?

If the operations in the Journal I refer to (October issue), caused the death I would call the surgeons down privately. If they were last-chance cases, I would say it was a last-chance affair and that they were in a moribund condition at the time of operation.

Very truly,

L. ST. JOHN HELY, M. D.

Richmond, Calif., October 11, 1919.

Immunity

The Journal will express no opinion of and assume no responsibility for the views of "Immunity" correspondents. They must win or lose on their own merits by abounding in their own wisdom, and each reader must appraise each communication for what it is worth and take it for better or worse.

Communications will not be signed when published, but the author must be known to the editor. Send on your complaints, your kicks, your knocks, your boosts. We want constructive and destructive criticism. Air your pet hobbies. You are not limited to your own town or the medical profession.

MEDICAL PRACTICE ACT SUGGESTIONS

To the Editor:—

The letters recently sent to all ethical and some unethical doctors asking for constructive suggestions on the administrative, educational and enforcement features of the present Medical Practice Act has created a great variety of comment in this county.

Some of the theories advanced for this splendid movement you would scarcely credit. This letter must have been sent to all the Doctors, for I met one the other day who has made a number of unsuccessful attempts to break into our County Society and he was apparently agitated by the contents of the letter. He said, "I know what those highfalutin' medical experts are trying to do. They want to make all of us old-fashioned family Doctors take another examination and then they'll ask us questions we never heard of. But as long as there's enough dough in a doughnut they won't succeed. The Christian Scientists, Chiropractors and others won't let them. I like the Chiropractors and Christian Scientists that don't care how anyone practices a good deal better than I do these University experts that are always trying to regulate somebody. If I had my way I'd let everybody practice without

a license. Let the people find out for themselves the difference between the good and bad Doctors."

I told him that the defect in that policy was that it was the survivors, the heirs and assigns that discovered the difference and not the sick. He said, "They all die sometime no matter who tends them, so what's the difference?"

How are you going to reason with a man whose mental machinery works like that?

I met another Doctor who said he had to have a copy of the Medical Practice Act before he could make any suggestions. I asked him if he had ever read the Medical Practice Act or any part of it, and he said he couldn't remember, although all his professional activities should be governed by the provisions of the Medical Practice Act. I asked him if he knew anyone who was violating the Medical Practice Act and he said he did. I asked him how he knew and he became angry. I guess he thought I was getting personal. In general, however, the movement to strengthen the Medical Practice Act is strongly favored and I am sure the League Committee will receive some sound suggestions from the Doctors of Fresno County.

FRESNO COUNTY DOCTOR.

October 8, 1919.

State Societies

The following States grant reciprocity to licentiates of California:

Arkansas	Missouri
Colorado	New Jersey
Georgia	Ohio
Kansas	Oklahoma
Kentucky	Pennsylvania
Louisiana	South Dakota
Maryland	Vermont
Michigan	Wisconsin
Mississippi	Wyoming

County Societies

ALAMEDA COUNTY

In the short space of less than a month's time the Alameda County Medical Association was called upon to mourn the loss of three of its most esteemed members.

The last call came to Dr. Francis Reber Musser on August 26th, to Dr. George W. Kretsinger, September 8th and to Dr. J. Burris Wood, September 9th. The going of these men is a distinct loss not only to the Medical Association, but to the entire community who extend sincere sympathy to their bereaved families and mourn with them.

Dr. J. D. Long, U. S. P. H. A., Dr. Daniel Crosby, Health Officer of the City of Oakland, and Dr. R. A. Bolt, director of the Alameda County Public Health Center, were the speakers at the September meeting of the Alameda County Medical Association. At the close of the program light refreshments were served.

Dr. W. H. Kellogg, Secretary of the Board of Health, reports that the Public Health Survey of the City of Oakland, embracing a survey of all the departments of Public Health work, industrial and housing conditions, sanitary environment, water supply, sewage and garbage disposal, etc., is the biggest thing ever done officially in a Public Health Survey in the West.

On August of this year the Board of Directors of the former Oakland College of Medicine and Surgery formally turned over the entire College property and Clinic equipment valued at about \$30,000 to the Alameda County Public Health Center.

In order that this magnificent gift may be all the more valuable to the Center, this group of medical men, who have been carrying on such

splendid pioneer work in their community for many years past and who, with a number of others, constituted the Staff of the Clinic, have resigned as such to leave the Center entirely free to make its own appointments, but no change will be made in the program of the clinics until the renovation of the buildings and the reorganization of the clinics has been effected in the Health Center. The valuable medical library of the Alameda County Medical Association is to be continued and a meeting place for the Alameda County Medical Association is to be maintained in the College building.

The changes and improvements now being made by the Supervisors of Alameda County at the present County Hospital are expected to put the buildings in shape for use for the next ten years.

These improvements will also meet the demands of the County during the period of five years, which is the time estimated for the construction of the new County Hospital to be known as the Highland Hospital of Alameda County. This hospital is to be one of the most up to date County Hospitals on the Pacific Coast.

At the September meeting of the Samuel Merritt Hospital staff, Dr. Emil G. Beck of Chicago addressed the meeting on "The Intentional Removal of Skin, Fat and Muscles Overlying Deep Seated Carcinomas."

Dr. Robert Glenn read a paper on "The Blood Count as an Index to Resistance." The Annual Surgical Clinic of the Merritt Hospital staff, held October 6th, was conducted by Professor Emmet Rixford of San Francisco, (Stanford University). Arrangements were made to accommodate one hundred physicians. After the Clinic light refreshments were served. Before the Clinic Dr. Rixford was the honor guest at a dinner given by Dr. and Mrs. George Rothganger; other guests were Doctors S. H. Buteau, C. A. Dukes, M. L. Emerson and Robert Glenn.

Dr. Daniel Crosby, Oakland's Health Officer, will attend the meeting of the California Health Officers and League of California Municipalities to be held at Riverside, October 20-24, 1919.

Dr. David Hadden has just returned from attending the meeting of the American Association of Obstetricians and Gynecologists held at Cincinnati. The Association honored the Doctor by electing him Vice-President. Dr. Hadden also visited some of the newer hospitals to secure ideas for the new East Bay Hospital.

Dr. and Mrs. Sill have just returned from a five months' auto trip, touring thirty States and six Canadian Provinces from Quebec west through to British Columbia, covering some 15,000 miles. The Doctor also attended the meeting of the American Medical Association and the thirty-fifth reunion of his class at Hamilton College, New York. Dr. and Mrs. Sill were accompanied by Mr. and Mrs. Kelly, parents of the late Dr. A. S. Kelly.

Doctors C. E. Curdts and C. T. Devine have returned from the service.

LOS ANGELES COUNTY Special Meeting

Program—Radium Therapy with Reference to Emanation, illustrated with lantern slides.—Prof. Wm. Duane, Research Professor of Physics at Harvard.

On September 8, Dr. William Duane, Research Professor of Bio-Physics, Harvard University, and Fellow of the Cancer Research Commission, Harvard University, addressed a special meeting of the Los Angeles County Medical Society, his subject being "Radium Emanation and Its Therapeutic Application."

Prof. Duane reviewed the discovery of radium by Mme. and M. Curie, which, contrary to the general opinion, was not an accident, but the result of a carefully outlined plan of research. The

discovery of radium and other radio-active substances added more than thirty new elements, and revolutionized the existing conception of matter and various physical phenomena.

Prof. Duane discussed somewhat in detail, the chemical and physical properties of radium, illustrating how radium owes its therapeutic properties to certain rays emitted during the process of the transmutation into other elements. Radium breaks down into helium, an inert gas, and emanation. The emanation in turn breaks down into radium A, B, C and D, which emit the alpha, beta, and gamma rays. He explained how it is not from the radium itself, that these rays of therapeutic value are emitted, but from its product, emanation, and demonstrated with slides the apparatus devised by himself for collecting the emanation. By means of this apparatus it is possible to separate the emanation from the radium in solution, purify and collect it in small capillary tubes, which in turn may be made into the desired applicators for therapeutic purposes. He stated that the use of the emanation greatly extended the scope of radium therapy, and emphasized its superiority to the use of the radium salts. The emanation permits of a concentration, whereby a tube or applicator of great activity may be made extremely small in size. The active deposits may also be collected and used for local application, or placed in solution for intravenous injection.

Prof. Duane discussed briefly the recent developments in radium therapy, and reviewed the work conducted at the Huntington Hospital in Boston. He called attention to the necessity of an ample quantity of radium for radium therapy, stating that approximately one gram of radium, with the necessary facilities for collecting the emanation were essential.

The speaker expressed his regret at the somewhat general use of small and inadequate quantities of radium, in the hands of inexperienced and unskilled men, which, he stated, is largely responsible for the skepticism among the profession and laity, regarding the value of radium therapy.

He mentioned the Memorial Hospital, Huntington Hospital, Johns Hopkins, the Mayo Clinic, and the Radium and Oncologic Institute of Los Angeles, as being the only institutions in this country adequately equipped for the proper use of radium, and congratulated the profession and the people of the Pacific Coast upon the establishment in Los Angeles of such an institution. It was for the purpose of installing the apparatus for collecting the emanation at the Radium and Oncologic Institute that Dr. Duane made the trip to California.

LOS ANGELES COUNTY MEDICAL ASS'N In a Joint Meeting With SOUTHWESTERN TUBERCULOSIS CONFERENCE

Thursday, October 2. Three sessions—2 o'clock, 2:30 to 6, and 8:30 to 10:30—Hotel Virginia, Long Beach.

Program

1. The National Problem of Tuberculosis seen from the army viewpoint. Col. Roger Brooke, Surgeon-General's Office, Washington, D. C.
2. The Relation of the Public Health Service to the State and Municipal Tuberculosis Problem. Surgeon T. K. Pierce, United States Public Health Service, representing Surgeon-General Rupert Blue.
3. Experience With Tuberculosis in the American Expeditionary Forces. Lieut-Col. Alexis Forster, Colorado Springs, Colo.
4. Diagnostic Problem in Tuberculosis. Dr.

James Alexander Miller, representing The National Tuberculosis Association.

5. Asthma as a Complication of Tuberculosis. Dr. Grant Selfridge, San Francisco.

6. Discussion. Dr. Orville Brown, Phoenix, Arizona.

7. Hyperthyroidism in Tuberculosis. Dr. Louis Sayre Mace, University of California Medical Department, San Francisco.

8. Discussion. By Dr. Walter Brem, Los Angeles.

9. Perspective in Diagnosis of Early Tuberculosis. A Study of Diagnosis in 100 Cases. Dr. Mary Jones Mentzner, San Francisco.

10. Discussion. By Dr. Chesley Bush, Superintendent of the Arroyo Sanitarium.

11. A Review of San Francisco's Experience in Handling Its Tuberculosis Problem, With Recommendations. Dr. Geo. H. Evans, San Francisco.

12. Discussion. By Dr. Marcia A. Patrick, Los Angeles, and Dr. Edward Von Adelung, Oakland.

13. A Practical Method of Assisting the Family Physician in Recognizing Early Tuberculosis. Dr. L. J. Moorman, President Oklahoma Tuberculosis Association, Oklahoma City.

14. Posture in Treating Tuberculosis. Dr. Ellis Jones, Los Angeles.

15. Consideration of Pain, Especially in Women in the Rest Treatment of Pulmonary Tuberculosis. Dr. C. L. Lowman, Los Angeles.

16. Chest Pain in Pulmonary Tuberculosis. Dr. Philip H. Pierson, Stanford Medical Department, San Francisco.

17. Discussion. By Dr. C. C. Browning, Los Angeles.

18. Racial Susceptibility in Tuberculosis, With Special Reference to the Indian Problem. Dr. Allen Hamilton Williams, Phoenix, Arizona.

19. Climate Distinguished From Fresh Air in the Treatment of Pulmonary Tuberculosis. Dr. John W. Flinn, Prescott, Arizona.

9. Perspective in Diagnosis of Early Tuberculosis.

20. Discussion. By Dr. William Palmer Lucas, Dr. W. Jarvis Barlow and Dr. Robert Pears.

HARBOR BRANCH REGULAR MEETINGS

August 29—Program

Eclampsia—Dr. W. B. Hill. Discussion by Dr. R. L. Buffum.

Dystocia—Dr. J. Nelson Barnes. Discussion by Dr. J. R. Silverthorn.

Caesarian Section—Dr. W. E. Guidinger, San Pedro. Discussion by Dr. W. H. Newman.

Differential Diagnosis in Ulcers of the Stomach—Dr. A. W. Hiller. Discussion to be opened by V. Ray Townsend.

Medical Treatment of Gastric and Duodenal Ulcers. By Dr. Frank M. Mikels.

LOS ANGELES OBSTETRICAL SOCIETY

Opening Meeting of Sixth Year, Tuesday, October 14, Office of Dr. Edward M. Pallette

Program

Addresses by All Past Presidents—Drs. Titian Coffey, L. M. Moore, E. M. Lagard, P. O. Sundin.

County League Closes Official Existence

The final report of the Los Angeles County League for the Conservation of Public Health has been published and the sum of \$438.12 turned over to the State League treasury.

Los Angeles Clinical and Pathological Society Barlow Medical Library, Sept. 25—Program

1. Dr. C. D. Lockwood—Resected portion of a sigmoid removed from a woman sixty years of age, who had progressive symptoms of intestinal obstruction and a palpable mass in the left iliac fossa. This tumor both before operation and when examined at the time of operation was thought to be carcinoma.

Microscopic examination after removal proved it to be inflammatory in nature.

The patient had had prolonged X-Ray and radium treatment for a fibroid tumor of the uterus and the question arises as to whether or not the inflammatory reaction in the sigmoid was not the result of radiation by the X-Ray or radium.

2. Dr. Granville MacGowan—Report of Intra-vesicle Prostatic Growth, nearly filling the bladder complicated with a large suppurating diverticulum, with symptoms of general infection and a high blood reaction. Operation in three stages: Recovery. X-Ray of other diverticuli.

3. Dr. C. W. Bonyne—A New Colorimeter.

4. Dr. William B. Bowman—X-Ray findings in "Coccidioidal Granuloma," the so-called California disease, with lantern slides.

Southern California Society of Anesthetists

A regular meeting October 7th. Dr. Walter R. Crane presented a paper on "The Administration of Anesthetics in Tonsillectomies."

Los Angeles Surgical Society.

Special meeting October 6th.

Suggestions in the Treatment of Recurrent Deep Seated Carcinoma—Dr. Emil G. Beck of Chicago. Discussion, Dr. Walter N. Caseley.

Surgical Treatment of Gastric and Duodenal Ulcers by Dr. F. E. Walker. Discussion to be opened by Dr. W. Harriman Jones. X-Ray findings by H. H. Heylman.

Personals

Dr. Geo. H. Kress, Vice-President of A. M. A.

The Los Angeles County Medical Association and the California State Medical Society were honored in having a member elected from this part of the country by the American Medical Association.

Dr. Geo. H. Kress is dean of the Los Angeles Medical Department of the University of California and ex-president of the Medical Society of the State of California, and was for a long term secretary-treasurer of the Los Angeles County Medical Association and is chairman of the committee on public health of this County Association. He acted as chairman of the California State Commission appointed by the Legislature on the tuberculosis situation of the State.

Dr. Kress is chief of staff of The Graves Medical Dispensary, and is also attending eye surgeon at the Los Angeles County Hospital. One of his recent activities was that which had to do with the founding of the League for the Conservation of Public Health of which he is the vice-president.

Pomona and Dartmouth Get Bequests in Brainerd Will

Pomona College and Dartmouth College will benefit from the estate of the late Mrs. Fannie H. Brainerd, who was a well-known club woman of this city and wife of Dr. Henry G. Brainerd. Her will was filed for probate yesterday. Mrs. Brainerd died in this city August 29, leaving an estate which is said in the will to be in excess of \$30,000.

The Security Trust and Savings Bank is made trustee of a fund of \$40,000, the net income of which is to go to Henry Howard Brainerd, a son, during his lifetime. Upon his death the trust fund will be divided between Pomona and Dartmouth Colleges.

Doctor Suffers Serious Injury

Dr. M. L. Moore, Los Angeles, while fishing in a Montana lake recently, broke his leg when he slipped off a stone on the water's edge, and when found some time later by friends had only his head and shoulders above the water. He was accompanied by Dr. Granville MacGowan, Burton Green and Luther Green. Dr. Moore is now at his home and is making a fine recovery.

State Veterinary Examiner

The appointment of Dr. Maynard Rosenberger to the State Board of Examiners in Veterinary Medicine, was announced from the office of Gov. Stephens at Sacramento. Dr. Rosenberger is a member of the Los Angeles Health Department, being chief milk inspector, and was endorsed by the Milk Producers' Association and cattle and dairy men of this section of the State.

Dr. Chas. B. Adams Re-opens His Office

Dr. Charles B. Adams, who recently returned from two years' service with the Army, has re-established his offices in Los Angeles. Dr. Adams was stationed in various military camps throughout the nation and was ready to sail for Europe when the armistice was signed.

Balkans

Dr. Lulu Hunt Peters, who has been spending the last five months in Serbia on a special mission for the American Red Cross, has now been assigned to the work of investigating the Orphan Asylums in Roumania and Albania. She reports a most interesting tour through the Balkans.

Fishing

A rather unusual vacation trip was recently enjoyed by Drs. Gordon Avery, Chas. Bonyng and Geo. Laubersheimer who just returned from a 1,000 mile excursion through Mexican waters. The party went in two yachts and spent three weeks traveling up and down the coast of Lower California enjoying "all the fishing in the world" off Cedros Island and in the vicinity of Turtle Bay.

A Decoration Given

A decoration was given to Lt. Col. Frank C. Wiser by the King of Roumania in recognition of his work with the Hoover Commission in that country.

Dr. Wiser had charge of the Field Work for the Relief Department of the Commission and traveled over 5,500 miles in the discharge of his duties in that capacity. He brought back some fascinating pictures of little Gypsy children, over 200,000 of whom he had the privilege of feeding during his administration of the 500 canteens established by the Commission in that small land.

Returned From Service

Dr. Charles Willoughby Anderson returns to civil practice limited to general surgery.

Dr. Ray A. Carter.

Dr. J. G. Evans.

Dr. H. M. Griffith.

Dr. Walter Holleran.

Dr. J. L. McLaren. Mechanical, electrical and hydro-therapeutics.

Dr. Alfred James Scott, Jr. Practice limited to pediatrics.

Dr. J. E. Vallee. Practice limited to surgery of the eye, ear, nose and throat.

Major Byron Stookey, lately in charge of the Neuro-Surgical service at Ft. McHenry, Baltimore, has been asked by the Government to continue these studies begun at the University of Michigan, at Columbia University where he will spend the coming year. At the conclusion of this research the clinical study in nerve repair and brain surgery, Dr. Stookey will return to Los Angeles.

Old Curiosity Shop to Help a Hospital

In order to expand in the clinic work and to establish a social service department, the officers of the Children's Hospital and their friends yesterday held a meeting at the Hotel Clark to announce a bureau of salvage. It is the belief of the officers that such a department will care amply for the financial needs of the enlarged work.

Each of the several hundred guests of the officers was provided with a large canvas bag and a list of material that can be sold in the store-room of the hospital soon to open in the down-

town district. This list included clothing, garments, hats and shoes for men, women and children; rubber tires, inner tubes and scrap, magazines, newspapers, rags, books, toys, jewelry, either broken or whole; plated ware, aluminum, copper, brass and household furnishings of every description. These articles will be sold by the salvage bureau.

Mrs. Albert Crutcher, president of the hospital, which is an institution to care for the sick and crippled children of Los Angeles, announced at the meeting that Mrs. Bud Frankfield has been appointed manager of the new work.

Hospital Benefit

A Charity Fashion Show was held at the Trinity Auditorium, September 23, for the benefit of the Children's Hospital.

A Worthy Charity

The Children's Hospital is one of the most vital charities in the city of Los Angeles. One of its urgent requirements is a separate contagious and infectious ward, and also a fund for the retention of wet nurses, who are indispensable in cases of children born prematurely or where a baby is so emaciated that no other nutrition will suffice. A feature of the Children's Hospital which is found nowhere else in Los Angeles is the follow-up system on cases returned to their homes. Nurses are sent periodically to the homes of the convalescent patients where inquiry is made regarding food, living conditions and the general care that is provided.

The hospital also maintains a free clinic open every day in the week.

The hospital is supported almost entirely from voluntary subscriptions and it is desired to raise a fund of \$100,000 to provide for the next year's operations. Checks made payable to Miss Florence Avery, treasurer, and forwarded to 621 South Vermont Avenue, will be promptly acknowledged.

Books Wanted for the Norwalk Hospital

The Psychopathic Association desires to enlarge the library at the Norwalk Hospital and to furnish more reading matter to the people at the County Farm. An appeal for bound books and magazines has accordingly been issued by Mrs. W. S. James, 521 Shatto Place. Anyone who has reading matter to give away is asked to telephone her. The number is 52247. Books with pictures are specially sought.

"Healer" is Held

Charged with violating the State Medical laws and selling a salve made of dog's fat, rattlesnake oil and a dozen other things, Henry de Prieu, 70 years of age, landed in the City Jail when inspector Jack O'Connell of the State Board of Pharmacy, completed an investigation of the self-styled healer.

According to hand bills circulated by de Prieu, he is the greatest healer in the world. Among other statements the prisoner said: "I only touch you with my hands three times, from your forehead to your toes, and you feel better immediately."

The salve, according to de Prieu, will cure headache, toothache, neuralgia, consumption, bronchitis, asthma, all stomach troubles, burns, cuts, and open wounds.

New Health Resort

B. L. Vaughn, who recently purchased the Barbara Worth Hotel at El Centro, has purchased the Jacumba Hot Springs and the 200 acres surrounding and will immediately begin the erection of a modern hotel and bath-house. Improvements to the extent of \$50,000 will be undertaken at once and carried to completion early this fall. A concrete swimming pool, turkish bath parlor, trees and lawn will be added at once to the hotel.

Tax Landlords for Baby Fund

Dr. J. L. Pomeroy, county health officer, who is working on his bill for helping mothers, has com-

pleted one clause providing a bounty of \$100 to every wife of moderate means for each child born to her.

Another clause provides a tax to be levied on owners of property who refuse to rent to tenants who have children. This tax will assist the bounty fund.

To Help and Then to Cure

Plans intelligently and humanely to handle what is acknowledged to be a most serious situation relative to drug addiction, with the city authorities in charge, as proposed originally by Collector Carter of the Local Internal Revenue District, are assuming concrete and definite shape.

A committee, made up of publishers, physicians, clergymen and attorneys, at the request of Collector Carter, will go before the City Council, to lay before that body details of the plan that has been agreed upon. To provide for the initial expense of the proposition, the Council will be asked to make a small appropriation for the establishment of the clinic, but it is believed that as soon as it is well under way it will be self-sustaining.

Collector Carter gave the following statement covering the need of the movement, and what steps have already been taken to insure its success.

The United States Supreme Court has handed down a decision holding that it is unlawful and a punishable offense for a physician to prescribe the drugs prohibited by the Harrison Narcotic Law to addicts merely for the satisfaction of addiction. This decision brings us face to face with a critical and menacing social situation that is not only ripe for treatment, but must be successfully treated in order to avoid crime.

To meet this situation the representatives of the County Medical Society, the State Board of Pharmacy, Federal authorities, members of the Chamber of Commerce and of women's clubs have decided to co-operate with the Board of Health in establishing a public clinic for the treatment and cure of the drug addicts.

The reason why representative men and women of this community are taking such vital interest in the establishment of this clinic is explained by the fact that drug taking is really a diseased condition, not merely a vicious habit.

Many persons who were simply unfortunate, rather than actually vicious, have become serious lawbreakers, driven to the last extremity by the craving for the drug. It is the object of this proposed public clinic to help these unfortunates back into the normal channels of living.

So menacing has this situation become that the Hon. Daniel C. Roper, Commissioner of the Internal Revenue, has instructed all Collectors of Internal Revenue immediately to seek advice of physicians in their respective districts, and communicate to him some plan by which this imminent menace can be successfully dealt with.

In the Los Angeles Internal Revenue District, a committee of physicians, under the chairmanship of Dr. John V. Barrow, has been laboring with this problem for several weeks and has arrived at a plan which members think is a solution of the difficulty. The committee considered the plan adopted in New York, Memphis and New Orleans and recommended an adoption of a modification of the New Orleans system, which, in their professional judgment, will meet the exigencies of the situation.

The plan proposes the establishment of a municipal clinic, under the supervision of Dr. L. M. Powers, City Health Officer, at which clinic addicts can obtain narcotics at actual cost. This dispensing will be under the direction of a physician who will prescribe for, and treat these addicts, with a view to effecting a cure of their addiction. Proper safeguards will be thrown around the municipal dispensary or clinic, which will pro-

tect it from abuse. In this new public clinic it is proposed to treat the drug addict in such a manner that he may continue working at his usual occupation, thus losing very little financially or in self respect.

The "dope peddler" is a downright menace to society and is surreptitiously supplying these unfortunates with these habit-forming drugs at prices so high as to be unbelievable. The municipal dispensary will relieve the unfortunates of dependence upon these nefarious peddlers, and in a large measure restore their self respect by showing to them that society, with compassion, is desirous of aiding them in every way to recover themselves from the drug habit.

It is believed that the dispensary will become self-supporting in a brief time after its institution, and the small expense necessary for its installation will be gladly borne by the public. Wholesome public opinion seems to be entirely in favor of this method of treatment and the details of the clinic have been approved by the committee of public spirited physicians who have given so largely of their time and of their intelligence to formulate the plan.

SACRAMENTO COUNTY

The regular monthly meeting of the Sacramento Society for Medical Improvement was held Tuesday evening, September 16.

An instructive and interesting paper was read by Dr. Louis C. Jacobs of San Francisco on the "Diagnosis and Treatment of Bladder Lesions."

The following Doctors were elected as members of the County Hospital Staff for the Fourth Quarter, beginning October 1:

Surgery—Dr. A. C. Hart.
Medicine—Dr. F. F. Gundrum.
Diseases of Children—Dr. W. A. Beattie.
Gynecology—Dr. E. C. Turner.
Obstetrics—Dr. G. A. Foster.
Bacteriology—Dr. M. A. Seavey.
Urology—Dr. N. G. Hale.
X-Ray—Dr. H. Zimmerman.
Eye, Ear, Nose and Throat.

Dr. J. W. Callnon was accepted to membership in the Sacramento County Society, being transferred from the San Bernardino County Society.

The following Doctors have returned from Army Service and resumed their practices:

Dr. G. A. Briggs has returned from service in France and resumed the practice of his specialty, eye, ear, nose and throat.

Dr. J. W. Crawford, who also saw service in France, has returned and resumed his practice.

Dr. F. R. Fairchild has returned from military service and is limiting his practice to general surgery.

Dr. E. C. Turner has resumed practice after many months of service in Europe. Before returning Dr. Turner studied Proctology and Gynecology in London.

Dr. H. Zimmerman, roentgenologist at the Letterman General Hospital, has returned and opened an extremely well equipped X-Ray laboratory.

The next meeting of the Society will be devoted to addresses and discussions of important topics by the League for the Conservation of Public Health.

SAN DIEGO COUNTY.

On September 23rd the County Medical Society enjoyed their first dinner meet since the summer vacation. Fifty-six members met at Hotel San Diego, and after a well served meal listened to an excellent paper on "Blood Transfusion" by Dr. A. H. Zeiler of Los Angeles. The subject was discussed by Drs. Burger, Fox, Pickard, Chartres-Martin and Zeiler.

The next meeting of the society will be a clinical evening at the County Hospital, which meetings are always intensely practical.

Dr. Robert H. Donnell has recently returned from transport duty in the U. S. Navy to take charge of the medical work in the Navy's local recruiting station. His many friends are glad to welcome him back to San Diego.

Support of the League for the Conservation of Public Health is rapidly increasing in San Diego, as evidenced by the checks of its supporters. Money has a persuasive language of its own.

Dr. Lorin F. Wood, Jr., is back from service in the Army and has opened offices in the Isis Theater Building.

SAN BERNARDINO COUNTY

The society had its regular meeting according to this program.

Drs. P. R. McArthur, G. L. Cole and Harlan Shoemaker came up from Los Angeles, and Mr. C. J. Sullivan came down from San Francisco. These men addressed the society on the League, and \$400.00 was subscribed.

The newly elected officers are Dr. C. F. Whitmer, Colton, President; Dr. L. M. Coy, San Bernardino, First Vice-President; Dr. J. L. Avery, Redlands, Second Vice-President, and Dr. C. L. Curtiss, Redlands, Secretary-Treasurer. Drs. H. G. Hill and J. H. Evans, delegates to the State meeting, and Drs. C. F. Whitmer and C. L. Curtiss, alternates.

Drs. E. W. Burke, J. L. Avery, H. W. Mills, P. M. Savage and L. M. Coy were present, being back from the army.

Benjamin Franklin Church, Redlands

Benjamin Franklin Church, Redlands, Calif.; College of Physicians and Surgeons, Baltimore, 1888; aged 61; a specialist in diseases of the eye, ear, nose and throat; was instantly killed by leaping from the window of his physician's office in Los Angeles, September 2, 1919. Dr. Church moved to Redlands twelve years ago from Los Angeles to get away from the strain of a large city practice, and had been in poor health for some time. He was a very active member of the State and County Societies. In 1917 at the San Diego meeting, he was chairman of the Eye, Ear, Nose and Throat Section of the State Society. In 1917-18, he was President of the San Bernardino County Medical Society; at one time he was president of the Los Angeles Academy of Medicine; formerly dean of the faculty and professor of ophthalmology and otology in the College of Physicians and Surgeons, Los Angeles. He was very active in the fight against Social Health Insurance; a member of the Board of Directors of the League for the Conservation of Public Health, and during the war served as eye, ear, nose and throat specialist on Medical Advisory Board Number One of San Bernardino County.

The San Bernardino County Medical Society at its annual meeting in October 1919, passed the following resolutions:

Resolution Adopted

The following resolution on the death of Dr. B. F. Church was adopted by the society:

Whereas, Our esteemed friend and colleague, Dr. Benjamin F. Church, has gone from our midst and will be with us no more.

Whereas, He stood and worked for the highest principles and attainments in the medical profession.

Whereas, He, with his great skill and knowledge, devotedly and honorably served suffering humanity.

Be it resolved, That the San Bernardino County Medical Society do hereby recognize the sterling worth and character of Dr. Benjamin F. Church and express their deep appreciation of him as a

man and a physician and their regret that he should so soon have been taken from his sphere of usefulness.

T. M. BLYTHE, M. D.

C. L. CURTISS, M. D., Secretary.

SAN FRANCISCO COUNTY

Society Meetings

Proceedings of the San Francisco County Medical Society

During the month of September, 1919, the following meetings were held:

Tuesday, September 2—Section on Medicine

1. Fetal death—Study of the fetal mortality in a series of 2750 obstetrical cases.—J. G. McQuarrie.

2. Induction of labor and discussion of its possibilities, based upon 60 cases in a series of 2750 obstetrical cases.—A. E. Maxwell.

3. The behavior of the pelvic joints during pregnancy, labor, and the puerperium, based upon a study of 38 cases by the X-Ray.—F. W. Lynch.

4. Presentation of photograph of Dr. S. O. Beasley.—A. B. Spalding.

Tuesday, September 16—Section on Surgery

Meeting held at San Francisco Hospital.

1. Thrombosis of splenic vessels followed by abscess of spleen.—G. E. Cagliari.

2. Paget's disease of breast with metastasis to callus of old ununited fracture of humerus.—A. L. Draper.

3. Technic of new method for excision of Bartholin's glands.—M. H. Heppner.

4. (a) Sinus of neck from tooth abscess simulating bronchial cleft sinus.

(b) Technical features in handling direct and sliding inguinal hernias.—Harold Brunn.

5. General discussion of surgical cases:

(a) Disarticulation at the hip joint.

(b) Old fracture of condyle of tibia into the knee joint with genuvalgum.

(c) Presentation of surgical cases.—Emmet Rixford.

6. Discussion of esophageal carcinoma from standpoint of the roentgenologist.

Tuesday, September 23—Section on Eye, Ear, Nose and Throat

Recent experiences in Europe.—Adolf Barkan.

Tuesday, September 30—Section on Urology

1. Election of Officers for 1920.

2. Renal calculus. Report of case.—J. C. Spencer.

3. Ureteral obstruction.—J. R. Dillon.

4. Experimental hydronephrosis.—Frank Hinman.

5. Causes of frequent and painful micturition in women.—Martin Molony.

The Southern Pacific Hospital has found it to advantage to establish a metabolism ward for the care of all of its cases of diabetes, chronic hyper-tension, gout and endocrine disorders. It is conducted as a re-education school. The laboratory work is done by Dr. W. T. Cummins under the Harriman Research Endowment and the service is being directed by Dr. Philip King Brown. The Southern Pacific Hospital has for ten years conducted outdoor wards for the treatment of its lung cases, and is one of the very few hospitals in the country where this treatment is provided for and systematically carried out.

STANISLAUS COUNTY

The first meeting for the year of the County Society was held in Modesto, Friday evening, October 10. A good attendance and an awakened interest was shown. All the men of the county, who were in the service have returned, except Dr. Ira J. Clark, who has located elsewhere. Five of the twelve new physicians, including two women who have recently located in the county, were present and all express a desire to join the Society. No regular program was given. The

meeting was called as a get-together affair and to discuss the advisability of having regular stated meetings during the year.

It was agreed that the next meeting should be short papers and discussion on the "Flu" of last year and its return this year. One meeting of the year is to be an "efficiency" program, both in professional work and the business end of our profession. Another night will be given to sociability, a dinner to be served with our wives and lady friends present. Other programs will be given by local men and invited guests, it being thought best to have outside speakers only a part of the time.

The spirit of the meeting was for mutual helpfulness and better work—physicians working as co-laborers and not as competitors.

San Francisco Hospital Colloquia

On October 2 the Autumn quarter commenced for the Surgical and Medical Clinics, which have been so successfully conducted by the staffs of the Stanford University Medical School and the San Francisco Polyclinic at the San Francisco Hospital.

As heretofore the clinics in surgery and the surgical specialties (including gynecology, obstetrics, genito-urinary, eye, ear, nose and throat) will be held in the surgical amphitheater every Thursday morning from 9 to 12, and the clinics in general medicine and the medical specialties (including pathology, neurology, pediatrics and dermatology) will be held in the medical amphitheater every Friday morning, commencing at 9 a. m. sharp.

The Medical Clinics will be held as follows:

October 10. General Medicine.
October 17. Neurology.
October 24. Pediatrics.
October 31. General Medicine.
November 7. Dermatology.
November 14. Neurology.
November 21. Pathology.
November 28. General Medicine.
December 5. Pediatrics.
December 12. Neurology.
December 19. General Medicine.

The Surgical Clinics, as heretofore stated, will be held every Thursday and will consist of the available operations in surgery or the surgical specialties.

These Clinics are free and are open to all reputable medical men. No special programs will be sent this quarter.

Lane Medical Lectures

The Lane Medical Lectures will be delivered this year by Dr. Alonzo E. Taylor, Professor of Physiological Chemistry at the University of Pennsylvania. Dr. Taylor will speak on the "Feeding of the Nations at War." The Lectures will take place at Lane Hall, on Sacramento street near Webster, San Francisco, at 8 o'clock on the evenings of December 8, 9, 10, 11, and 12.

Dr. Taylor was sent abroad under the auspices of the American Minister to make a scientific study of the care of the Allied prisoners in Germany. His reports were published by the British Government in 1916 and 1917. At that time he was particularly interested in the food problems associated with nutrition of a people at war. Upon our entrance into the war he was one of the first men taken in by Mr. Hoover in the organization of the Food Administration. His particular problem was to co-ordinate the efforts of the Department of Agriculture and those of the newly established Food Administration. He was a member of the

Committee on Research and on Public Health of the Food Administration and also a member of the Commission sent abroad by this country to study the alimentation problems of the Allied nations. Subsequently he was the representative of the Department of Agriculture upon the War Trade Board. He made two different trips to Europe studying conditions there and since the Armistice has been the representative of the Food Administration and the American Relief Administration particularly in the Balkan countries.

His broad scientific training, his amazing capacity for facts and his administrative abilities have all combined to make him an important outstanding figure in the war. He has written a series of remarkable articles dealing with various aspects of the war, particularly for the Saturday Evening Post. No one is better fitted than he to explain the broad nutritional problems of all of the European countries during the whole of the war period.

Incidentally he is the author of a book on "War Bread" and with Dr. Kellogg published a book on "The Food Problem."

Memorial Laboratory and Clinic Santa Barbara

The regretted death of Dr. Nathaniel Bowditch Potter, the director of this Clinic, is the occasion of mentioning the work hitherto accomplished and that which is proposed. In 1917, Dr. Potter resigned as Professor of Clinical Medicine, College of Physicians and Surgeons, Columbia University, New York City, to establish a metabolism clinic on the Pacific Coast. Considerable financial assistance was first obtained and then a carefully selected staff brought together. Under Dr. Potter's auspices scientific treatment of diabetes, nephritis and other metabolic diseases was organized and systematized at the Cottage Hospital, Santa Barbara. A number of research problems were studied and reported in the literature. Endowment was also obtained for free beds for the metabolic cases, of which there is such great need. The success of the Clinic has recently caused a generous response on the part of the community which has taken the form of a remarkably complete new building, dedicated April 14th, 1919, on the eve of the annual meeting of the California State Medical Society. This building has been fully equipped and occupied by the Clinic which may therefore, it is thought, be with propriety designated at the first complete unit for the study of and research in metabolic diseases at present in the United States.

The present organization of the Clinic is as follows:

Advisory Council—Henry S. Pritchett, LL. D., President of the Carnegie Foundation; George Owen Knapp, President Cottage Hospital Board of Directors; Robert Walton Goelet, New York City, N. Y.; Theobald Smith, M. D., LL. D., Princeton University; Herbert C. Moffitt, M. D., Dean of the Medical School of the University of California.

Consulting Staff—Donald D. Van Slyke, M. D., Consulting Physiological Chemist, Rockefeller Institute Hospital; August Hoch, M. D., Consulting Psychopathologist, recently deceased; Dr. Samuel Robinson, Santa Barbara, Consulting Surgeon; Dr. Ross McPherson, New York City, Consulting Gynecologist.

Staff—Dr. Nelson W. Janney, Director; Dr. Robert R. Newell, Clinical Assistant; Dr. Harry E. Henderson, Clinical Assistant. Miss Elisabetta C. Pennell, Chemist; Miss Evelyn Warren, Assistant Chemist; Miss Inez Smith, Bacteriologist; Miss Hildegard Henderson, Research Worker; Miss Alison B. Robertson, Dietitian-Nurse in Charge; Miss Carrie Luce, Dietitian.

Department of Pharmacy and Chemistry

Edited by FELIX LENGFELD, Ph. D.

Help the propaganda for reform by prescribing official preparations. The committees of the U. S. P. and N. F. are chosen from the very best therapeutics, pharmacologists, pharmacognosists and pharmacists. The formulae are carefully worked out and the products tested in scientifically equipped laboratories under the very best conditions. Is it not plausible to assume that these preparations are, at least, as good as those evolved with far inferior facilities by the mercenary nostrum maker who claims all the law will allow?

During the present campaign against narcotics the statement is constantly made officially and unofficially that the physician is to blame for a very large proportion of addicts. One hundred fiends are haled before the Chief of Police and in response to questions, seventy-five perhaps tell a hard-luck story to the effect that the habit was contracted during a long illness and that the prescriptions which the physician ordered had large quantities of narcotics to relieve pain. This is the simplest story to tell and it is more likely to awaken sympathy than a statement that the habit was contracted deliberately or through association with others. No attempt is made to investigate the story and it is accepted at its face value and made the basis for articles in medical and secular press.

This is a matter which concerns every physician, for not alone does it involve the fair name of the profession but it may lead to drastic legislation which will certainly interfere with the legitimate use of narcotics. Already men who cannot be called cranks are advocating that the Government should entirely stop the manufacture and use of opium and coca derivatives. The Federal Committee on Narcotic Traffic recommended legislation to prevent the manufacture and use of heroin.

A number of years ago it was very easy for the physician to make an addict, especially if his prescription fell into the hands of an unscrupulous druggist who could legally repeat it indefinitely. A few physicians were inclined to be careless and in some cases nurses made life easier by giving hypodermics when they were not absolutely necessary and in that way created addicts.

For many years, however, most physicians have recognized this danger and many druggists have refused to refill prescriptions even when they could do so legally. The Harrison Anti-Narcotic Act, which is being rigidly enforced, exercises complete supervision over the legitimate use of narcotics and it is hard to believe that any more addicts will be made by the physician. It therefore behooves the physician to see that there be no more drastic legislation so far as he is concerned.

The Federal Committee found that fully one-half of all the opium and coca preparations used in this country were brought in illegally and there seems to be no diminution in this traffic. It is said that addicts can openly obtain as much morphine, heroin and cocaine as they can buy, and it therefore looks as though what is needed is not legislation regarding the use of these, but legislation or action that will get the illegal drug peddlers. If judges would give the men who deliberately violate the law for the purpose of supplying the needs of addicts the full limit, they could be lenient with the druggist or physician who unintentionally overlooks some technicality and still stop the traffic. However, what is the use of cutting off opium and alcohol when anybody can buy paregoric, for unfortunately the law prohibiting the sale of this poison has been held up by referendum petition.

Hereafter the skull and bones symbol and the word "Poison" must be printed in red ink on all labels affixed to wholesale and retail packages of completely denatured alcohol, according to instruc-

tions received to-day by Collector of Internal Revenue Justus S. Wardell from the Department. This action, the report states, has been taken in view of the grave and extended abuses of the use of completely denatured alcohol.

In his instructions the Commissioner says:

"Reports recently received in the Bureau establish that completely denatured alcohol is being used extensively for bathing and rubbing purposes. This is contrary to the law and regulations and such uses cannot be tolerated, as the completely denatured alcohol is highly injurious to the skin and animal tissue.

"It is also established that completely denatured alcohol is being sold by irresponsible dealers under such circumstances as to assure them that it is being used for beverage purposes. Where it is so used for any length of time blindness inevitably ensues and the continued use can only result in death."

Completely denatured alcohol is a mixture of ethylalcohol, and methyl (wood) alcohol, to which pyridine or some other malodorous substance is added, and pays no internal revenue tax.

The Council of Pharmacy and Chemistry of the American Medical Association comments on the Merrill Proteogens as follows: "They present another attempt to foist on the medical profession a series of essentially secret preparations whose therapeutic value has not been scientifically demonstrated. It is the old story of exploiting physicians through commercial pseudoscience; of trading on the credulity of the profession to the detriment of the public. They are not admissible because their composition is secret; because the therapeutic claims made for them are unwarranted; and because the secrecy and complexity of their composition makes the use of these preparations irrational. The Proteogens are said to be prepared 'Under the personal supervision of the originator, Dr. A. S. Horowitz,' who also originated Autolysin (an alleged cancer remedy, exploited some years ago). At one time the advertising for Proteogen No. 1 (Plantex) gave the impression that this was essentially the same as Autolysin. A study of the medical literature revealed no evidence establishing the value of the Proteogens; in fact, no evidence was found other than that appearing in the advertising matter of the manufacturer. The range of diseases in which Proteogens are recommended is so wide as to make obvious the lack of scientific judgment which characterizes their exploitation. Considering the grave nature of the diseases for which Proteogens are recommended, the want of a rational basis for the method of treatment and the general tenor of the advertising, it appears safe to conclude that these agents do not represent any definite advance in therapeutics" (Jour. A. M. A., July 12, 1919, page 128).

The Council has refused to accept Hormotone because its composition is semi-secret and its therapeutic claims seem unwarranted.

"Pasteur" Made the Hero of a Play*

It will certainly interest the world at large—and particularly, the medical world, to know that the great Pasteur has just been given one more honor. He has been made the hero of a beautiful play.

Pasteur—as early as twenty-four years after his death, "est entré dans la Légende" as the French would say,—(has entered the realm of legends). It must be that his glory is so high, the halo around his name so radiant, that it affords the necessary perspective usually required, and only obtained after many generations.

*The above was written specially for the Journal by Miss Rebecca Godehaux, at the request of Dr. René Bine.

The author, Sacha Guitry, had long cherished the thought of an acted picture of Pasteur's life. But, what if it should prove a profanation, a sacrilege? The author hesitated; he dared not put on the stage the worshiped master, who had almost just left our midst. Vallery-Radot, Pasteur's son-in-law, had published a splendid biography of the great scientist. Sacha Guitry devoured it,—his imagination was at work before his reason gave consent. At last, one day, Lucien Guitry, the great actor, father of Sacha, asked his son to write a part for him. It was then that "Pasteur" stood before him—no longer on the pedestal of his own statue—but on the great platform called "The Stage."

How reverently and adoringly Sacha Guitry handled his "subject." How careful he was not to betray any of Pasteur's admirable qualities, his modesty, his firmness, his honesty, his generosity. No incident, no episode foreign to this most beautiful life, has any place in this "work of love,"—as one might well call it.

Sacha Guitry has accomplished with no other aid but Pasteur's biography and his own dramatic genius, what is usually only attained with much fiction. He has made a wonderful play out of a few well chosen pages of a remarkable life.

The play is divided into five rather short acts, relating to five different periods of Pasteur's career.

The first act takes place in 1870. It is a mere introduction, showing Pasteur's relations with his pupils. The second act (1880) represents the Academy of Medicine. There we are shown the great man in all his wonderful activity and strength, defending his ideas and discoveries against a few skeptics and detractors.

How forcibly we are given an insight into this splendid character, so gentle, so mild, except when unjustly treated! When once sure of his theories, when once illumined by the light of truth, he violently defends his discoveries and convictions. In the third act (year 1885) Pasteur is seen ministering his care to a child dangerously ill, threatened with hydrophobia. For the first time Pasteur applies his treatment, and with what care and what love for the little victim. At the end of the act, Pasteur prepares to leave his little patient in

the hands of his assistant; he puts on his hat and coat, giving the doctor his last instructions. Then, after a pause, he takes off hat and coat, and decides to spend the night at the bedside of the little sick child. "Go," he tells one of his pupils, "go to Mme. Pasteur; tell her what has happened; she will excuse me; she will understand why I spend the night here."

The fourth act (in 1888) takes place at Arbois, Pasteur's home. The great man is failing in health, and is being eagerly watched by his anxious wife and doctor. A visit fills him with joy,—that of the child, whose life he had saved. How exquisitely Sacha Guitry has shown here the love of Pasteur for children. When the young boy assures him of his good health, and exhibits the prize he has received at school; when the child tells him his mother said "Pasteur saved his life," the master with a cry of joy exclaims: "Oh, how beautiful these words sound coming from this little mouth. He does not know, he does not understand what he is now doing for me. Show me your beautiful, living eyes, look at me." It is most touching, most perfect in depth of feeling.

The last act (1892) is "at the Sorbonne." This short act is a sort of apotheosis of Pasteur. President Carnot comes in person to present to him the Cross of the Legion of Honor, and the play ends with Pasteur's own words, "I unflinchingly believe, that science and peace will triumph over ignorance and war, and that people will understand each other and agree not to destroy, but to edify."

This beautiful play in which not one woman appears, has been received with much enthusiasm. To add to its success, the part of Pasteur was done most wonderfully by the great artist Lucien Guitry, father of the author.

It seems that he conceived the part with such truth, such realism—and, through his extraordinary art achieved such a perfect resemblance to his great model, that Mrs. Vallery-Radot, Pasteur's daughter, as she saw him appear on the stage—startled,—cried out: "Father!"

Let us congratulate both "Guitrys" for having thus almost resurrected in mind and body the great man whose work will be immortal.

The San Francisco Hospital

By WILLIAM C. HASSLER, Health Officer.

Foreword.

While this paper is intended to be descriptive of the magnificent group of buildings now comprising the San Francisco Hospital, it is deemed that a brief history of the old buildings, formerly known as the "City and County Hospital," would properly be in order first.

The Old City and County Hospital.

The original hospital was erected in the year 1872, the contract price being \$134,400. Additional ward and operating rooms and a retaining bulkhead were built in 1877, at a cost of \$20,000, bringing the initial cost to \$154,000. It would be difficult at this time to estimate the amount of money expended for alterations, additions and repairs between 1877 and 1908 (when these buildings were destroyed), but it is fair to assume that it would run into tens of thousands of dollars.

The buildings in question consisted of a group of sixteen structures, located on Potrero avenue running from Twenty-second to Twenty-third streets and extending back to San Bruno avenue, the size of the lot being 866 by 480 feet, or a square city block of dimensions above the average.

For purposes of comparison with the new group a general description of the old hospital would seem proper, the following data culled from an ancient report being quoted:

"Administrative building, central portion 69½

by 44½ feet with two wings, each 68½ by 21½ feet, and rear extension 26 by 17 feet; frame, two stories and attic, with brick basement. Dining hall, 76½ by 51¾ feet, minus the open court 24 feet square; frame, two stories and brick basement. Kitchen, 50 by 35 feet; brick, one story with Mansard roof. Larder and scullery, 35 by 18 feet; frame, one story. Outdoor closets, 35 by 12 feet; frame, one story. Six ward pavilions, each 156 by 26 feet; with flanking wings at both front corners, 13½ feet square; frame, two stories. One operating and one dressing room, each 25 by 17 feet; frame, one story. Chapel, 50 by 30 feet with library 18 by 14 feet; frame, one story, with Gothic roof. Main connecting corridor, 556 by 19 feet; frame, one story. Laundry, 63 by 43 feet; brick, one story and basement. Stable, 44 by 24 feet; frame, two stories. Morgue, 44 by 18 feet; frame, one story."

In 1872 the foregoing described hospital was doubtless considered as a wonderful institution, and perhaps it was, but as time went on it naturally began to outgrow its usefulness as the city grew and expanded, and for many years prior to the construction of the now existing buildings the old hospital proved to be woefully antiquated and inadequate, and many unsuccessful attempts were made from time to time to secure a new group of buildings in their stead. The reports of various health officers in San Francisco for many years prior to 1908 always dwelt very strongly on the wretched condition existing in the old institution and were constantly urging the necessity of mod-



General View of Buildings

ern buildings to properly handle the city's indigent sick.

Up to 1907, however, all efforts and recommendations along these lines were without result, as a policy of repair and extension of the existing buildings seemed to prevail rather than the idea of erecting new structures, but in August of that year the issue was presented when bubonic plague made its appearance in the city, and it was discovered that the City and County Hospital was a focus of infection for this disease. On August 28, 1907, the hospital was placed under quarantine by the Board of Health acting in conjunction with the United States Public Health Service.

Various plans were devised and schemes pursued to thoroughly disinfect the old buildings but without avail, as it appeared that proper disinfection or fumigation could not obtain owing to the rambling character of what might now be properly termed old and dilapidated shacks, composing as they did a conglomerate mass of wings and attachments apparently put up from time to time in more or less of a haphazard fashion.

On September 2, 1907, a resolution was adopted by the Board of Health directing the removal of patients in the City and County Hospital to a suitable quarantine station to be followed immediately by a destruction by fire of the existing structures. It appears that no immediate action was taken on this resolution for the reason that certain elements in the community could not be convinced that a real danger existed. On September 17, 1907, another resolution was adopted condemning the buildings as a public nuisance and ordering that they be evacuated as rapidly as possible. The terms of this last resolution were promptly carried into effect, and on October 14, 1907, it was reported that all cases had been transferred to the Relief Corporation Camp at Ingleside and to No. 2 building on the Almshouse tract, the former handling all acute and the latter receiving all chronic cases. By resolution No. 1847 January 22, 1908, the Board of Supervisors requested the Board of Public Works to formulate and report a plan to the Board for the absolute destruction of the City and County Hospital buildings and its material, and on March 3, 1908, the Board of Supervisors authorized the sum of \$3500 to be expended by the Board of Public Works for the purpose of tearing down and absolutely destroying the buildings comprising the City and County Hospital on Potrero avenue near Twenty-second street, and said buildings were destroyed by fire in June, 1908, as being insanitary. This marked the passing of the old

City and County Hospital, and we will now proceed with a description and history of the present San Francisco Hospital.

The New San Francisco Hospital.

On March 30, 1908, the Board of Supervisors of the City and County of San Francisco passed Ordinance No. 404 (New Series) calling for a special election for the purpose of submitting propositions to incur a bonded indebtedness for several different propositions, one of which was specified and set forth in said ordinance as follows:

"For the construction of permanent municipal buildings to be used for the purpose of public hospitals and the acquisition of lands necessary therefor."

At this special election, which was held on May 11, 1908, the proposition to incur a bonded indebtedness for such purpose in the sum of \$2,000,000 was carried. Previously (in 1903) a bond issue of \$1,000,000 had been carried for the erection of a hospital which provided for the construction of the buildings on the Almshouse site, but this plan was subsequently changed and the sum of \$250,000 of this issue was expended in the construction of an Infirmary on said tract, the intention being to use it temporarily for hospital purposes so far as its capacity would admit, to be later used for chronic cases or as an adjunct to the Relief Home. This building subsequently became what was known as the temporary City and County Hospital while the new group was under construction, and was used as such until May 1, 1915, when the new San Francisco Hospital was formally opened for the reception of patients.

With the proceeds derived from the sale of Hospital bonds of May 11, 1908, the Board of Supervisors declared it the intention of the City and County of San Francisco to have a Class A thoroughly fire and earthquake proof group of buildings to be constructed on the present site, and an additional lot of land to be acquired by the city and county in proximity to the old site. All of this additional land, most of which was occupied by dwellers, was acquired in due course of time and the hospital compound thus comprised two square city blocks.

The Board of Supervisors at this time declared "that said group of buildings were to be composed of a main building for acute and surgical cases, a group of pavilions for tuberculous patients and a group of pavilions for mild infectious cases."

The main building was to be a four-story structure with accommodations for 512 beds. "Said building to contain all administrative offices

common to the entire hospital scheme of the city; kitchen and dining room, operating rooms, physicians', examination, nurses' and servants' rooms, and all other general utility and storage spaces necessary for the proper operation of a modern hospital. It will be built so that if found necessary later 752 beds can be provided. The pavilion wards arranged separately from the main structure, for tuberculous patients, to have accommodations for 250 beds.

"Said group of buildings shall contain kitchen and dining rooms, such administrative, physicians', examination, nurses' and servants' rooms and all other general utility and storage spaces as shall be necessary to the proper operation of a modern hospital intended for that class of patients. The pavilion wards arranged separately from the main and tuberculosis sections for the treatment of mild infectious cases to have accommodations for fifty beds, said group of buildings shall contain kitchen and dining room, such administrative, physicians', examination, nurses' and servants' rooms and all other general utility and storage spaces as shall be necessary to the proper operation of a modern hospital."

Saturday, November 20, 1909, when the corner stone of the San Francisco Hospital was laid with fitting ceremonies, marked the beginning of an epoch in the history of the Health Department and in San Francisco that had long and earnestly been waited for, and from that date on, barring several unavoidable delays, work progressed fairly rapidly towards the completion of this immense group of buildings. Some idea of their magnitude may be gained when we state that the facade of the main group covers a space of between 800 and 850 feet in length, the exact size of the entire compound being given as 866 feet in length by 760 feet in depth.

The then city architect, Newton J. Tharp (since deceased), who designed the buildings, chose the old site for the location of the general hospital so as to be able to place the infectious disease building on the high ground at the northeast corner of the compound and the tuberculosis hospital at the southwest corner where the patients would have the advantage of air and sunlight. The Italian Renaissance style of architecture was followed by the designer of the buildings which are of brick of rich color with terra cotta trimmings. The grounds have since been laid out with green lawns and bright flowering plants to add to the attractiveness of the structure.

On the first day of May, 1915, the main group was declared completed and ready for occupancy, the Health Department taking formal possession, and proceeded to remove patients from the Infirmary building on the Relief Home tract to the new institution.

In 1917 it became apparent that the original bond issue of \$2,000,000 would not be sufficient to carry out the completion of the building and equipping of the tuberculosis wing, contagious pavilion and pathological building, and a further bond issue of \$1,700,000 was unanimously voted by the people under the designation of "Hospital-Jail Completion Bonds," and of this amount approximately \$1,500,000 was devoted to hospital purposes. Thus the entire group as it stands today represents an investment of \$3,500,000, the gift of a generous people to suffering humanity.

I.

Description of Buildings—Main Group.

The general hospital is four stories high and has room for 512 beds. It is so constructed that if later it is found necessary, the capacity can be enlarged to 752 beds. The main entrance to the hospital is in the center of the Potrero avenue frontage and persons entering or leaving the building are obliged to pass attendants who are on duty day and night. To the east and in the rear of the office



Typical Ward Building



View of Receiving Building and Emergency Hospital



View of Power Plant, Laundry, and connecting passage to Contagious Ward

there is an imposing courtyard leading to the administration building, at the sides of which are the several wards. These wards run east and west and are connected with the administration building by a wide corridor which extends the entire length of the site and unites all of the structures.

The main ward buildings are divided into thirty bed units, with twenty-six in a ward, 110 by 26 feet, and two separation wards of two beds each, with a cubic air space of 1500 feet for each patient. In the middle of the large wards on the north side a sanitary tower has been constructed containing toilet accommodations disconnected from the ward by a cross ventilated lobby. In the administration portion of the ward there is a dressing room where minor operations may be performed without moving the patients to the surgical pavilion; a diet kitchen with dining room attached, a laboratory, linen room, toilets and a large solarium being provided for each ward. An elevator capable of carrying a bed and four attendants is in operation in each ward building. A large porch on the south side of the first floor of all wards permits patients being wheeled into the air and sunlight. The roof of the main connecting corridor is also available for the same purpose.

II.

Receiving Building.

The Receiving building, which is used as an emergency and surgical pavilion, is located on the north end of the site. Between it and the administration building are the two surgical ward buildings, each four stories high; while to the rear, but centrally located and connected with the main corridor, is the main service building. There are two medical ward pavilions, also four stories high, to the east of the Administration and Service buildings and to the south of these is the Nurses' Home.

The Receiving building serves a fourfold purpose: to receive patients entering the hospital proper; for use as an emergency hospital; for the treatment of minor cases; and as an entrance for students from the medical schools. On the first floor the wards are so arranged as to accommodate thirty-five detention cases and the second floor is devoted to surgical operations and surgical cases, having two amphitheatres, each furnished for seventy-five persons. An amphitheater, sufficiently large to accommodate 200 persons, is located on the third floor and is used for clinical purposes. In the basement is located a fully-equipped hydrotherapeutic department.

III.

Administration Building.

The Administration building is three stories high. Offices for the Superintendent, Medical Corps, etc., and a reception room occupy the first floor. The two upper stories are devoted to the use of the medical staff and internes and contain a library and recreation room.

In the rear of the Administration building the main service building is located, at the center of the main corridor where it is easy of access from the other structures. It contains a large kitchen, a serving pantry from which all food is distributed to the wards, there being secondary serving pantries between the middle staff dining-room and nurses' dining-room and the male and female dining-rooms. The drug and linen storerooms are also located in this building, the two upper floors of which are devoted to the use of the help as quarters. In the basement is a general store room, bake oven and a separate apartment for storage of clothing of patients.

IV.

Nurses' Home.

The Nurses' Home is situated at the extreme southern end of the main corridor with a garden facing the south where the attendants may enjoy themselves and be free from view of the ward



View of Pathological Building



Contagious Pavilion—with Nurses' Home in foreground



Contagious Pavilion. Interior of an open-air or sun ward

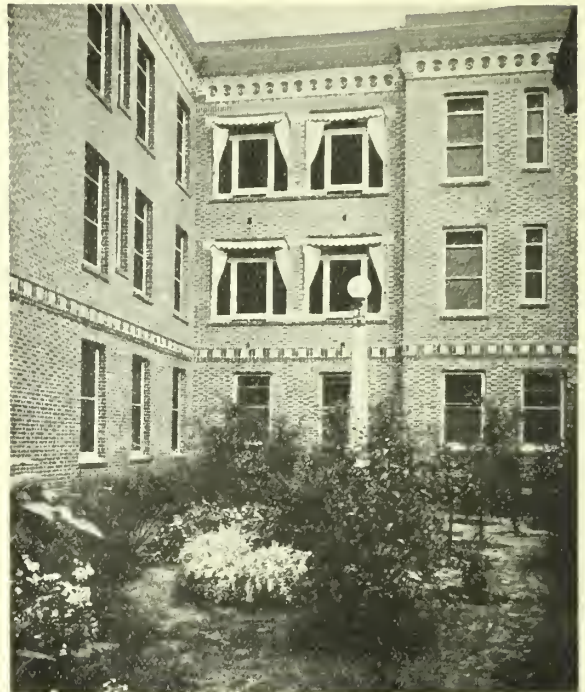
windows. Located in this building is a large lecture room, social halls, recreation rooms and a suite for the nurse in charge is situated on the first floor. The two upper stories are arranged for the accommodation of 120 nurses.

Power House and Laundry.

In the center of the grounds and at the rear of the Service building the power house and laundry is located, while to the north and close to the emergency pavilion are located the garages for the use of the various ambulances. The morgue is located on the first floor of the Pathological building, and so arranged that a view of its entrance is impossible from the other buildings.



Contagious Pavilion. Interior of single bed ward (cubicle)



Contagious Pavilion—Open-air wards.



Tuberculosis Wing—General View.
V.

The laundry and power house are located in the center of the group formed by the main hospital, the tuberculosis wing and the contagious pavilion so as to give equal distribution and minimum length to the steam feed pipes and mains. In addition to the large boilers for heating and hot water services there is a generating plant which provides light for all the structures and also power to operate the elevators, etc., a refrigerating plant to supply the ice needed for the several units, a vacuum cleaning apparatus, and an incinerator to destroy garbage, old bedding and old clothing. A system of tunnels connects the power plant with the three institutions and in these tunnels are run the steam, hot and cold water mains and other conduits, all exposed and easy of access in case of emergency. These tunnels are also used for the removal of bodies from any of the wards to the morgue.



Tuberculosis Wing—Showing Sun-porches.



Tuberculosis Wing. Open-air ward for bed cases.

VI.

The morgue is provided with two autopsy rooms and a demonstration room which will accommodate between 75 and 100 students. The laboratories of the Board of Health and a pathological room are situated on the upper floor, the roof of the building being arranged to accommodate the various animals used in experimental and research work.

VII.

Communicable Disease Wing.

The communicable disease wing or group consists of a three-story U-shaped ward building with the court facing south. On the first floor, connected to the building proper by covered corridors, is the administration unit. The northern unit of this wing, and connected to the main ward building by a covered passage, is located the residence quarters for the medical staff and the nurses' dormitories. The ward units are distributed in the two wings of the U, each floor being divided into two divisions with the service in the center, such as diet kitchen, utility room, laboratory, bath room, linen room, etc. In the heel of the U to the north on the second floor, is the operating suite. This building is especially designed to give isolation to the individual patient by the so-called cubicle. But at the same time, all the advantages of the large ward treatment are obtained by means of glass partitions and wire screening. Each element of service is so arranged and placed as to carry out the rigid regime which is required in an institution of this sort. The associated architects of this building were John Reid, Jr., and Frederick H. Meyer.

The kitchen and dining rooms for the administration are placed on the first floor and connected with the main hospital group by a special tunnel. The contagious group has a special entrance for visitors and patients, opening on to the central driveway of the main group and jealously guarded against the casual visitor.

XII.

Tuberculosis Group.

The group of buildings for the tubercular patients is generally known as the S. E. Wing of the San Francisco Hospital and is situated to the southeast of the General Hospital upon a lot having a frontage of 376 feet on 23rd street by 465 on Vermont street. An alleyway 20 feet wide separates the grounds of this group from the General Hospital grounds, while at the north line its grounds or garden adjoin that of the northeast wing. The architect was Mr. Hermann Barth.

The group of buildings for the tubercular patients is placed practically in the center of the lot, with the main facade facing toward the south on 23rd street. It consists of several buildings, semi-detached by means of air-cut-offs, which are short passages provided with windows on both sides, enabling a complete isolation of the several buildings from one another as far as air is concerned, at the same time providing direct communication from one building to the other on all the floors.

A covered passageway connects this group of buildings with the Administration building of the General Hospital.

XIII.

The several buildings are grouped around an axis running north and south, the main building, five stories in height, forms the head of the composition, flanked by two four-story pavilions, which, with the main building, surround on three sides the main court of the building, leaving the main court open toward the south and approach.

The pavilion to the west of the central structure houses the male incipient patients, the pavilion to the east the male advanced patients. The Women's

building is located along the main axis and forms the north end of the composition; it is two stories in height, arranged to receive an additional story in the future.

The Administration building, three stories high, is also placed on the main axis between the main building (or building for males) and the Women's building, thus completely separating the male from the female patients. A like separation of sexes is strictly carried out in the layout and design of the garden and grounds.

The Administration building contains the general office, waiting room, doctors' offices, doctor's bedroom with bath, head nurse's bedroom with bath, and internes' bedrooms with bath.

A high basement extends under all the structures.

The wards and accessories are arranged in ten units, each unit provides for 25 patients, of which eight units are given to the male patients and two units to the female patients. The four units for male incipient patients contain each:

XIV.

One open ward of ten beds.

One closed ward of five beds.

One closed ward of four beds.

One closed ward of two beds.

Four closed wards of one bed.

The four units for male advanced patients each contain:

One closed ward of four beds.

Two closed wards for three beds.

Three closed wards for two beds.

Nine closed wards for one bed.

The two units in the Women's building contain the following:

XV.

Incipient Patients:

One open ward for ten beds.

Two closed wards for four beds.

Seven closed wards for one bed.

Advanced Patients:

Two wards for three beds.

Six wards for two beds.

Seven wards for one bed.

Each unit throughout is provided with a diet kitchen, surgical dressing room, examining room, linen room, apparatus room, utility room, lavatories, toilets and bath for patients, and lavatory and toilet for nurses, janitors' closet, also a large sun room.

Open terraces and porches are of ample capacity and planned so as not to take away the sun and light to the rooms.

The window area for each ward is of such size, that by opening them each ward becomes practically an open ward.

Large and separate roof gardens are provided for the male and female patients, to which are joined rest rooms and solariums, toilets, etc.

The electric elevators are automatic push-button machines, two of which serve the main building, one serves the Women's building, and one is planned for the Administration building, all connecting with basement, each story and the roof garden.

In the matter of heating, ventilation and lighting, nurses' call system, etc., the most up-to-date approved systems have been installed.

All buildings are of fireproof construction with steel frame, concrete floors, terra cotta partitions, exterior brick walls with terra cotta trimmings.

The architectural style is a free adaptation of the Italian Renaissance and harmonizes with the architectural treatment of the General Hospital group.

The aim in planning was to group the several parts so as to admit of easy administration with a maximum of economy in both cost of structure and maintenance, with due regard to convenience and comfort to patients and attendants.

Appointments and Promotions

STANFORD UNIVERSITY MEDICAL SCHOOL
1918-1919

APPOINTMENTS:

Medicine:

Desire, M. J., Lecturer on Physical Therapy.
Farrington, G. E., Lecturer on Speech Defects.
McClenahan, H. C., Lecturer on Medicine (Neurology).
Luttrell, Peter H., Clinical Instructor in Medicine.
Selling, Nathalie, Clinical Instructor in Medicine (Electrotherapy).

Obstetrics and Gynecology:

Carpenter, F. B., Lecturer on Gynecology.
Stevens, W. E., Lecturer on Urology.

Surgery:

Brown, H. A., Clinical Instructor in Surgery (Ophthalmology).
O'Connor, Roderic, Clinical Instructor in Surgery.
Bunnell, Sterling, Lecturer on Surgery.
Hartman, George W., Lecturer in G.-U. Surgery.
Ryfkogel, H. A. L., Lecturer on Surgery.
Welty, C. F., Lecturer on Surgery (Otology, Rhinology, Laryngology).
Stevens, Burt S., Lecturer on Surgery.
Zobel, A. J., Lecturer on Proctology.

Medicine:

Arnold, Clement H., Assistant in Medicine.
Duncan, John A., Assistant in Medicine (Dermatology).
Gothbraith, Norbert J., Assistant in Medicine (Neurology).
Spiro, H., Assistant in Medicine.
Smith, W. E., Assistant in Medicine.

Obstetrics and Gynecology:

Galbraith, Francis B., Assistant in Obstetrics and Gynecology.

Surgery:

Dudley, H. W., Assistant in Surgery (Ophthalmology).
Jacobs, S. N., Assistant Lecturer in Surgery.
Raynes, Francis, Assistant in Surgery.
Reeng, J. D., Assistant in Surgery (Genito-Urinary).
Campbell, John L., **Clinic Dentist.**

PROMOTIONS:

Boardman, W. W. from Assistant Professor to Associate Professor of Medicine (Actinography).
Barnett, George D., from Instructor to Assistant Clinical Professor of Medicine.
Clark, W. R. P., from Clinical Instructor to Assistant Clinical Professor of Medicine (Tuberculosis).
Cosgrave, Millicent M., from Clinical Instructor to Assistant Clinical Professor of Medicine (Pediatrics).
Donovan, Monica, from Assistant to Instructor in Medicine (Actinography).
Harbaugh, Rose W., from Assistant to Clinical Instructor in Surgery.
Haven, Maude N., from Assistant to Clinical Instructor in Medicine.
Eloesser, Leo, from Assistant Clinical Professor to Associate Clinical Professor of Surgery.
Inman, Thomas G., from Clinical Instructor to Assistant Clinical Professor of Medicine (Neurology).
Kenney, Wm., from Assistant to Clinical Instructor in Medicine (Neurology).
Kimberlin, L. O., from Assistant to Clinical Instructor in Surgery.
Langnecker, H. L., from Clinical Instructor to Assistant Clinical Professor of Surgery (Orthopedics).
Layman, Mary, from Assistant to Clinical Instructor in Medicine (Pediatrics).
Mehrtens, Henry G., from Clinical Instructor to

Assistant Clinical Professor of Medicine (Neurology).

Pierson, Philip H., from Assistant to Clinical Instructor in Medicine (Tuberculosis).
Read, Jay Marion, from Assistant to Clinical Instructor in Medicine.
Reed, Alfred C., from Clinical Instructor to Assistant Clinical Professor of Medicine.
Schaupp, Karl, from Assistant to Clinical Instructor in Obstetrics and Gynecology.
Sharpe, Otis A., from Assistant to Clinical Instructor in Surgery (Ophthalmology).
Tupper, Roland B., from Clinical Instructor to Assistant Clinical Professor of Medicine.
Oliver, Jean R., Associate Professor of Pathology.

New Members

Quinn, Wm., San Francisco.
Schussler, Herman, San Francisco.
Woolsey, John H., San Francisco.
Lowe, Frank A., San Francisco.
Hill, S. Anson, San Francisco.
Weber, Wm. L., Los Angeles.
Bittner, S. P., Monrovia.
Scholz, Arnold M., Los Angeles.
Fagin, E. A., Los Angeles.
Mellinger, Herbert V., Los Angeles.
Pinkerton, B. G., Los Angeles.
Northrup, Fred D., So. Pasadena.
Van Pelt, R. S., Los Angeles.
Floersheim, Samuel, Los Angeles.
Hartvig, Marcell, Los Angeles.
Barnett, Fred J., Los Angeles.

Transferred

Dr. F. J. Petr, from San Joaquin Co. to Alameda Co.
Dr. A. S. Parker, from San Bernardino Co. to Fresno Co.
Dr. J. A. Callnon, from San Bernardino Co. to Sacramento Co.
Dr. F. W. Sawyer, from San Francisco Co. to Los Angeles Co.

Deaths

Van Slyck, D. B. A graduate of University of Buffalo, N. Y., 1852. Licensed in California 1887. Died in Pasadena, September 30, 1919.

Skinner, Cynthia A. A graduate of Woman's Hosp. Medical College, Ill., 1890. Licensed in California 1910. Died in Los Angeles, October 4, 1919. Was a member of the Medical Society, State of California.

McCoy, T. J. A graduate of Kentucky School of Medicine 1880. Licensed in California 1887. Died in Los Angeles, October 1, 1919. Was a member of the Medical Society, State of California.

Price, Marshall F. A graduate of Chicago Medical College, Ill., 1875. Licensed in California 1885. Died in Los Angeles, September 25, 1919.

Pendergrass, Wm. Clayton. A graduate of Vanderbilt University, Tenn., 1899. Licensed in California 1899. Died in Clovis, Calif., September 22, 1919.

Kretsinger, George A. A graduate of Medical School, Univ. of Calif., 1915. Licensed in California 1916. Died in Oakland, September 8, 1919. Was a member of the Medical Society, State of California.

McMurdo, John R. A graduate of University of California, 1891. Licensed in California 1891. Died in San Francisco, August 10, 1919.

Cook, Christian A. A graduate of the Eclectic Medical School, 1876. Died in San Francisco, August 20, 1919.

California State Journal of Medicine

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Yuba-Sutter.....

Contributors, subscribers and readers will find important information on the sixteenth advertising page following the reading matter.

VOL. XVII

DECEMBER, 1919.

No. 12.

THE DRUG ADDICT QUESTION.

Recognition of the evils and wide distribution of drug addiction has advanced to the point where we are witnessing various governmental efforts to control the use of habit-forming drugs. That these efforts have not met with adequate success is demonstrated by the problems now appearing of the care and criminality of drug addicts who are hampered under the law in procuring a sufficient supply of the drug to keep them comfortable, law-abiding and productive workers. Illicit drug dealers are profiteering to a huge extent among these unfortunates and thus creating a situation still further operating to cause criminality, suffering and social inefficiency.

An attempt is being made to meet these problems through the medium of municipal drug clinics, operated under the local Board of Health, where addicts may obtain at a fair and near cost price the actual amount of drug necessary to keep them more or less useful citizens and to prevent their suffering. Such clinics have been extensively discussed and tried in the last few months, notably in New Orleans, and New York City, and are the subject of experiment in Los Angeles and of discussion in San Francisco. The problem is very definite. It is worth while inquiring whether more stringent enforcement of the present law is needed or whether any other law would operate to better effect in the particular of reducing the number of drug addicts. Clinics and similar measures designed for alleviation or cure are only a stop-gap and in no sense get at the root of the evil. Can the present laws be better enforced so that illicit drug purveyors can be abolished? If not, would any new law be more effective? These questions must receive first answer.

As pointed out by Dr. Lengfeld last month in the Department of Pharmacy and Chemistry in the JOURNAL, it is questionable whether the medi-

cal profession is really responsible for any large proportion of drug addicts. This article (page 415, November issue) is strongly commended to your attention for rereading now. Vigorous, unremitting and determined prosecution and persecution of illicit drug peddlers would do more to remove the evil than any set of regulations pertaining to the administration of narcotics by physicians. It may be said in this connection also that the greater proportion of drug addicts contract the habit by association and imitation. Careful investigation recently of a long series of addicts at Bellevue Hospital showed that only about 4 per cent. contracted the habit through the prescriptions of unscrupulous doctors. The Public Health Service estimates that there are not over 175,000 addicts in the entire country. There is no definite proof that the evil is growing or spreading. Investigation of this point is much needed.

New York City has instituted a department for drug addiction at the Riverside Hospital capable of accommodating 523 men and 100 women. In a little more than the first month, more than 500 addicts had been taken off the drug and about 200 had been returned to their homes as cured. The method in brief is the reduction of the drug on admission to from 1-1.3 to 3 grains of morphine daily. Morphine is given regardless of the nature of the addiction, which in 99 per cent. of the cases was heroin. After four or five days, the patient is put under hyoscine anesthesia by hypodermic and the drug entirely withdrawn. The importance of after-care and moral stamina is recognized. A "cure" does not mean drug-withdrawal alone. It can only be a true cure when the victim has gained enough self-confidence and will-power to avoid and resist the associations and suggestions which would lead him back to the drug.

In the reports at hand from New Orleans, the attempt is made apparently only to provide the addicts with their drug at a fair price and thus do away with the illicit drug peddler, who is, as stated above, the crux of the whole problem. Such a plan does not seem advisable on its face. There is nothing to prevent the addict securing as much additional dope from the illicit dealer as he can pay for. There is no promise of cure in any plan separated from hospital or institutional restraint and medical treatment. And if there is no immediate urge to definite cure, it is hard to see what has been accomplished but some more or less sentimental and ill-founded temporary relief for the addicts. Any successful method must go deeper than this.

The drugs most used in New York were the opium alkaloids and derivatives. These are too valuable to mankind and animalkind to be abolished from human and medical use. Not the physician, but the illicit drug purveyor, should be penalized and put out of business. Heroin can be spared and its manufacture prohibited. Drug addict clinics may give splendid results if institutional treatment and cure is the one end and consideration in their operation. Such clinics coupled with a determined administration of the present law, and relentless penalizing of illicit drug dealers, seems the best path of advance in the case of this serious problem. There is no occasion for undue hysteria, however. The menace of drug addiction may be as great a social evil as some claim for it. We have yet to see authoritative proofs of a greater distribution than that noted above by the Public Health Service.

IMPORTANT ANNOUNCEMENT.

In the January number the Journal will open a Hospital Service Section. In each issue of the Journal during 1920 we will present hospital hints and brief timely articles and practical suggestions on construction, administration and the scientific and community service that hospitals should render.

This constructive service of the Journal, beginning with the New Year, will be helpful to the hospitals, beneficial to the patients and public and valuable to every ethical member of the medical profession.

We have an intimate and abiding interest in promoting the welfare and enlarging the field of service of all the institutions of our State, large or small, that are worthy to be called hospitals.

Hospital improvement is essential to the progress of scientific medicine. The profession has realized for some time that some hospitals were not keeping step with the onward march and that others were not filling the functions of real hospitals. Few hospitals, however, are devoted to their defects and most are anxious and ready to remedy them.

The imperative need and the vast field for improvement in hospital service have impressed all who are giving this great subject thoughtful attention. We will endeavor, in a broad co-operative spirit, to supply a portion of this imperative need and fill a part of this vast field with concrete facts. The purpose of the Journal's Hospital

Service Section will be to make a practical contribution to hospital betterment by presenting the factors that must be combined to make progressive hospitals more efficient and serviceable.

JUSTICE VERSUS "SCIENCE."

Statements made by Justice Wilbur lauding the achievements of modern medicine have been hastily followed by a resentful reply from Peter V. Ross, the official guardian of Christian Science Publicity.

Mr. Ross demurs to all the conclusions of Justice Wilbur in reference to medical conquests and makes the amazing counter statement that during the influenza pandemic, "Christian Science quietly healed thousands who turned to it for help, while modern medicine stood by helpless, ignorant alike of the cause, cure and prevention of the malady."

Mr. Ross strangely accepts the medical testimony that an epidemic existed, and the medical diagnosis that it was influenza. His indefinite statement of thousands would be more conclusive if he offered definite morbidity and mortality statistics.

Who has the records on which he bases the statement of "healing thousands?"

Of course, "the healing" was done "quietly" and the records are quiescent. But Mr. Ross seems to forget that unless matter exists there could not have been anything the matter with these thousands.

Mr. Ross advances a new theory of immunity in attacking Justice Wilbur's position. "In his age," says Mr. Ross, "the American Indian lived by swamps and other breeding places of germs in blissful ignorance of their reputed deadliness and hence with complete immunity from their attacks. The Asiatic of today repeats the Indian experience. But when medical institutes acquaint him with the fancied danger of his ways of living, without affording him any adequate prevention or remedy, his troubles will begin, not however, because of germs, for he now grows fat on them, but through his newly acquired fear of them."

The absurd theory of complete immunity accompanying "blissful ignorance" was sadly shattered when little Peter playfully poked fire with a stick of dynamite.

Another astounding statement of Mr. Ross, that can only be explained on the basis of his blissful ignorance of sanitation, is "wholesome sanitation has no connection with medicine."

Mr. Ross becomes queerly facetious in referring to Luke, "the beloved physician," "standing at attention with his medicine chest," but not lending first aid.

Mr. Ross should tell such stories to the marines, to our soldiers of the world war, to the Red Cross forces who know the value of modern medicine. Mr. Ross doubtless claims that "Christian Science" quietly healed thousands of those who were wounded and sick in the war without any material means and by the same methods "demonstrated as effective during the 'Flu'."

There is no record of any of our fighting forces using or recommending Mrs. Eddy's "scientific"

remedy even for a boil. Her explanation, however, of a boil to a soldier who had one would either arouse his fighting blood or make him laugh until he burst it. "You say," Mrs. Eddy remarks, "a boil is painful, but that is impossible, for matter without mind is not painful. The boil simply manifests, through inflammation and swelling, a belief in pain, and this belief is called a boil."

Without any intention of following Mr. Ross through his theological and scriptural wanderings, his frequent repetition of "Heal the sick" as the main mission of Jesus leads us to remind Mr. Ross, that though firmly believing in the regular operation of natural laws, the scientific medical men do not deny the possibility of the supernatural, but wherever and whenever the natural laws have been suspended on exceptional occasions by Divine power, they have later resumed their regular course.

All those that were healed or raised from the dead by Jesus are now dead. Lazarus and the daughter of Jairus, the servant of the centurion and the widow's son, those sick of the palsy and the lepers. The withered hand that was healed is pulseless now, and the blind and dumb that were given sight and speech—see nor speak no more. And the man who was possessed of a legion of devils, that were driven out of him into the herd of swine, is no longer publishing in Decapolis how great things Jesus had done for him.

In reading the gospel account of this driving the legion of unclean spirits into the herd of swine, Mr. Ross must experience great difficulty in justifying this biblical reference to animal experimentation and exploitation for the sake of mankind. Here we find "a great herd of swine" peacefully feeding on the mountain side destroyed with great violence without an anesthetic and without consulting or remunerating the owners. This great herd was destroyed that one man might be relieved.

When the apostles were sent forth they were told not only to heal the sick, but they were also instructed to raise the dead and not to possess gold or silver nor money in their purses.

If the "Eddian Scientists" could demonstrate their skill as effectively in raising the dead as they do in raising funds the cemeteries would soon be depopulated.

CHEERFUL NONSENSE.

A little nonsense now and then is good for the best of doctors. It is peculiarly appropriate therefore, that our old friend the Los Angeles Times, should continue each week to furnish amusement for the public and ribald mirth for the doctors with its page entitled "Care of the Body." It is a pity that these gems cannot appear in Medical Pickwick or some medium where they would be available for the delectation of the medical fraternity of the entire country. Truly such engaging buffoonery and artless as well as science-less prattlings should have no limitations on their mirth-provoking excellencies. It is a pity that some small part of the general public is possibly not in sufficiently close touch with the march of the modern world to appreciate the delectable feast

here spread to their use. Mirth prolongs life and the countless years of human life which have been added to the fortunate readers of this "Care of the Body" department by its resistless incentives to laughter, certainly make it a valuable public health agency.

Space forbids that we should present all the good points so freely offered. The medical brethren of the south are to be congratulated on having so polished and accurate a writer as Harry Ellington Brook, N. D., to serve up to them their Sunday fun. It must be an inspiration to have an "N. D." in town. Sort of stimulating to the imagination. The letters could mean so many things.

For instance, recently we read that life has been shortened by civilization, starvation, foods, drugs and serums. Syphilization has doubtless been overlooked and the oracle does not explain how the concatenation of foods and starvation is effected. Then we read that oiling the skin keeps the body supple. The fountain of youth is not to be found in a bottle or in the carcass of an animal. High blood pressure is high gas pressure, due to fermentation of food in the colon. That is due to wrong eating. Today doctors, so we read, know more about diagnosis, but little more than formerly about causes and treatment. Verily, let not this man sit at the table of the wise, lest he should eat, and learn and our pleasure be gone.

Again we read that all pus appendices if left alone will drain down naturally through the bowel and heal themselves. What a lot of unnecessary work and bother we have been to! Moreover, doctors wish the return of the flu to make more business for themselves. If we did not know human nature and the human public so well, that might arouse resentment, but we know the reader reads to be amused and will not lay any serious intention up against the writer, the said N. D. We learn that the California anti-vivisection society discussed three "issues" in long-suffering Los Angeles, which three were these: 1. Determination to suppress vivisection in hospitals of religious organizations whose precepts forbid the killing of inoffensive animals. Must refer to Buddhism, as Judaism, Christianity and so-called western religious faiths are based on the very contrary. 2. Support of a bill in the Senate forbidding use of dogs in vivisection. Until we know just what is meant by dogs and vivisection, this is ambiguous. 3. Plans to circulate an initiative petition next January to stop vivisection in California. These worthy aims would be complemented and reach full fruition in an ordinance making it illegal to be ill or to die. Too bad the N. D. did not think of this too, but here is the suggestion for what it is worth.

N. D. also considers that "boards of health" should be called "disease boards," as "What do they teach about health?" Serums, candy and cigarets caused far more disease than all the war casualties endured by our soldiers. We have wondered what did it. Here is the answer. Candy is worse than tobacco or alcohol, because it produces alcohol in the stomach and sours the blood. Our head whirls a little here and we wish N. D. had given the page and volume reference so we

could look up the details. Since he has established this fact, however, it is plain that we do not need vivisection any longer, as such scientific data could hardly have been obtained without vivisection.

N. D. says that the Wassermann test is often positive with no syphilis but merely an acid blood. "What can you expect of 'laymen' when the U. S. Army Health Service gives such rotten advice?"

Right along on the same page we read one of the most entertaining bits of the entire page. It seems to be an advertisement but is doubtless simply a joke made funnier by such juxtaposition. It says the Raw Food Dining Room is the only restaurant serving no salt, sugar or vinegar. It will doubtless so continue! It says all this is "very delicious to the unpurged palate." Would that we had an unpurged palate! What pleasures we are missing! Then there is "Nature's cure for rupture," and a splendid remedy for cancer, and "hysto" for nerves, and a grand boost for chiropractic which is five times more efficient than osteopathy and twenty times more efficient than drugs, and if you cannot afford to pay, they will chiropractic on you free for nothing, and there is no escaping them. Asthma, of course, is remembered with a sure cure, and weak feet—but perhaps these last had been bathed too much.

So all in all, we are edified and amused and now we wipe away the joyful tears and turn again to serious matters.

LOS ANGELES AND SAN FRANCISCO PHYSICIANS SKIP THIS.

The Journal will endeavor to serve the interests of the average doctor outside the larger cities by devoting whatever space is necessary to short summarized case reports of usual or unusual cases occurring in the actual practice of any doctor outside the cities of Los Angeles and San Francisco. Send them in. Any case that is of special interest to you. Any case that you would like to have discussed from the standpoint of diagnosis, treatment or in any other way. No bibliography, no "literature," just the concise description of the case. Your name will not be published. Only the case record will appear. With it will be such discussion as any one wishes to offer.

Cases presented one month will be open for discussion the following month. If you, the doctors of the State, will take hold of this subject, you can make it one of the most valuable and interesting features of the Journal. It will depend on you. The editor assumes no responsibility. If you do not want it, send no case reports and it will not trouble you. If you do want it, if you think you can get some advantage of consultation and discussion on cases in your own actual practice, send them in at once and as often as you can. Remember, no formal article or long-winded résumé. Just the case itself, and, if you wish, a request for discussion of the thing that baffles or interests you. Your name will not appear (unless you specifically request it). The editor will see that each case is discussed, no names mentioned, by at least one authority in the department involved. Everyone

who wishes may discuss any case printed, if he makes his discussion short and to the point. Send them in. For the January issue, have your case reports in the Journal office by December 10.

MINIMUM WAGE FOR OFFICE WORKERS.

The State Industrial Welfare Commission, under date of June 20, 1919, issued an order affecting the minimum wage lawful to be paid women and minors. This is set at \$13.50 per week, and includes workers in professional offices. The only exceptions to this rule apply to learners who, under certain conditions, may receive smaller wages. The total proportion of learners to all women employed shall not be greater than 33 1-3 per cent.

For part time work, adult women shall receive not less than \$2.25 per day or not less than \$0.35 per hour if employed less than six hours daily. Every employer of women or minors must keep a record in approved form of names, addresses, hours worked and amounts earned, of such employees. No woman or minor may be employed for more than eight hours in one day, for more than forty-eight hours in one week, or for more than six days in one week. They shall be entitled to one day's rest in seven and shall not work before 6 a. m., or after 10 p. m. A minor is a person of either sex under 18 years of age.

Physicians should take due notice of this order and govern themselves accordingly.

LIABILITY OF PATIENT FOR ACCIDENT TO NURSE.

In the case of Lottie C. Bethune vs. W. J. Logan before the State Industrial Accident Commission, the question was raised as to who was the employer of the nurse, and hence liable for compensation in the case where the nurse fell and broke her leg. The Commission decided that the patient in this case, was the employer and hence liable for compensation, and not the hospital. No new interpretation of the law was involved, but simply the determination of fact in this particular case. Various interesting speculations are aroused, however, as to liability of patients as employers. For instance is the physician in this sense an employee of the patient?

EDITORIAL COMMENT.

Recent work by Sugiura & Benedict¹ suggests that the therapeutic effect of radium on neoplasms may be due, at least in part, to the destruction of growth-promoting vitamins.

Dr. W. J. Hanna, Health Officer of Sacramento, calls attention, in reference to the statement in the JOURNAL in May that the maternity service of the Los Angeles health department was the only one in the United States of similar nature, to the fact that Sacramento has such an organization with a welfare nurse and a ward in the City Emergency Hospital.

¹ J. Bio. Chem., Oct. 1919.

Special Article

NOTES ON ENCEPHALITIS LETHARGICA IN SAN FRANCISCO.

By PHILIP KING BROWN, San Francisco.

Encephalitis Lethargica has made its appearance on the Pacific Coast in numbers sufficient to emphasize the epidemic character of the disease, and in a guise that frequently detracts attention from the chief characteristics of the disease as thus far described.

Ophthalmoplegia, blurred vision, listlessness or stupor, a droop of one or both lids, distorted facial muscles, spastic, tremulous, slow movements, difficult urination, increased or absent knee and patella reflexes, fever, absence of leucocytosis, and slight increase in spinal fluid cell count (mononuclear forms), have marked most of the cases. The stuporous state may be so deep that patients cannot be aroused. The death rate is forty per cent. Pain has not been reported as a conspicuous symptom, and is referred to as wanting by nearly all writers.

✱The cases that have passed under my observation since August 24, when the first one was brought to San Francisco from Reno, Nevada, have presented a range of symptoms marked by a variation, from an *extremely prolonged cycle covering from four to six months*, to several where death has ensued in four to eight days. The acute cases have presented all characteristic symptoms of the classical disease *to which has been added in the majority shooting pains of agonizing nature accompanied by muscular spasm*. The pain is not always in the part involved in the spasm, although most commonly so, and the pain may cease long before the spasm.

The following brief abstracts are given, by no means representing a complete study of the cases, but serving to show the protean nature of the symptoms.

H., J. E. Age 46. Locomotive engineer. Entered hospital August 25, 1919. Illness began with headache, nausea, general malaise, weakness on left side of body, some incontinence of urine, marked constipation, stiffness of back. Some pain in left hypochondriac region (localized). Patient states (two weeks later) that he thinks it all due to exposure and heat while at work. Patient in stuporous condition, aroused only with difficulty. Answers questions slowly and in a dazed way. Pupils pin point, equal, react to light and accommodation. Neck: very little tenderness and stiffness; some rigidity and stiffness of back. Kernig's sign: negative. Reflexes: K. K. plantar, triceps, biceps and periosteal-radial, active. Delirious at night. Threatened to kill night nurse. Wife reports patient has been doing irrational things for one year. Urinates on floor at night. Cannot be made to understand what to do. Moody and depressed. **For last year has slept inordinately, i. e., all day after sleeping well at night.** Wassermann:

negative on blood and spinal fluid. No evidence of brain inflammation, no abnormality in C. S. fluid except 32 cell count and plus pressure. No nystagmus. For a few days complained of dizziness chiefly when head is turned up and back to right, although **any sudden movement of eyes brings it on**. No nausea. Complains that left leg is weaker than right. More spastic in right than left. Knee reflexes very lively but equal. Plantar responses not normal in either foot, but no typical Babinski, and no Gordon, Oppenheim, etc.

September 11. States he was never entirely unconscious. Before the "cloud" settled on him he noted a general weakness, and especially in left leg. Left arm and hand weaker than right. Voice still monotonous. Distinct but slight internal strabismus. States that for two months he has seen double at times.

October 24. Patient has improved steadily. Spasticity is less and vertigo has nearly disappeared. Clear in mind and has shown no unsocial condition today. Acute disorder of July and August over.

J., M. L. Age 57. Male. Examined with Dr. Coffey, October 17, 1919. States he passed three nights without sleep, following day was much exhausted. Slept heavily that night. In a. m. found he saw double, no headache, perfectly rational; weak, but able to walk. **Examination:** Temperature 102.8, Pulse 96, Resp. 18. Markedly staggering gait with weakness on right side; marked tremor suggesting cerebellar disturbance. Slight motor weakness of muscles of right face. Coarse tremor of part brought into play in attempting any muscular movement, as frowning, closing eyes, protruding tongue or even showing teeth. Grip not strong in either hand. Hands and feet, particularly right, move constantly. Pupils dilated slightly, do not react to light. Cerebration slow. Tremor and attitude very like man befuddled slightly by alcohol. **Eye Examination:** Pupils small and probably do not react to light. No nystagmus. Slight internal strabismus right eye. No other involvement of cranial nerves. He sees better, but still sees double. Blood and spinal fluid negative for syphilis. Widal: negative. Cutaneous sensitiveness diminished over chest but not elsewhere. Both ankle jerks and right knee jerk absent. No Babinski. No disturbance of sphincters. Cerebration distinctly slow, but he understands and executes movements after they are repeated to him several times. A marked conjunctivitis from start. Wife reports he is most of time in a drowsy state, but can be aroused with no great difficulty. With exception of headache there has been no pain associated with attack.

November 6. Wife reports patient delirious at times, although afebrile for several days. Able to walk with less vertigo. Blurred vision in left eye still present.

Mrs. G. F. B. Age 36. Clerk in bank, widow with two children. Seen October 17 with Dr. Wymore. On October 11 felt slight steady pain in right side of neck. Next day it was more stabbing and constant. October 14 and 15 pain in neck increased. On October 16 went to work, but pain became paroxysmal and extended down arms and to breast, and back. Paroxysms were accompanied by spasm of muscles in region involved. Entered hospital October 16 in violent paroxysmal pain which continued uninfluenced by drugs for four days. Then for three days had no pain except in ball of left foot, but there continued in abdomen violent twitchings due to contraction of diaphragm. This is quite rhythmical and largely involves the right side, but occasionally the left. What caused relief of pain is not clear: morphia and pantopen did no good and made her even more excited. Nothing brought relief for first two days; antipyrine, salicyrène, aspirin alone and with phenacetine, caffeine, bromide and chloral, veronal, etc., all did no good. The first relief was

from 1/150 scopolamine, and for two nights this helped. Luminol was tried in dose of 1½ grains every six hours, and dialciba two tablets at night. This gave fair nights, but no relief of spasm. There was slight fever. On one occasion there was a slight amount of reducing substance in urine. Patient quite depressed. No previous eye disturbance, but sees double. No disturbance of hearing. No knee or ankle jerks. For several days past noticed considerable difficulty in getting flow of urine started, as though a spasm might be acting there. She has menstruated excessively recently, had influenza just a year ago. Has been said to drop things from both hands more easily lately. October 17 patient complained of a constant desire to urinate and move her bowels, and had great difficulty doing either one. Depressed all day. Pulse good. Unable to eat and nauseated by solid food. Very clear in her mind. States she sees double; there is slight strabismus. Tongue protrudes straight. No other involvement of cranial nerves except that smell and taste have been lost since influenza. Patient died quite suddenly at 1 a. m., evidently from paralysis of respiration.

C., T. Age 60. October 16, 1919. Began to see double after three or four days of insomnia, since then is sleepy all the time, irrational when aroused. Complained of pain in back of head and neck. Spells when he becomes rigid. **Examination:** Drowsy and irrational. Reflexes equal and lively in arms and legs. Pupils react to light and are equal. Does not raise left eyelid. Very resistive to passive movement. Wife states eyes were crossed before entrance to hospital. Conjunctiva injected. Rectal tempt. 101. Blood pressure 160/90. Wh. bl. count 14,100, 82% polys. Had to be tube fed the last five days and no sphincter control for last six days before death. **Course in hospital:** Ptosis of left lid continued until death. Progressive stupor. Paresis muscles of left face. Spinal fluid contaminated with blood. Wassermann negative. Died on ninth day.

C. E. D., Mrs. Age 31. Seen with Dr. Burnham. October 23, 1919. Neuritis for 18 days; began in back of neck and extended to both shoulders and down arms to hands. Pain spasmodic, agonizing in character and accompanied by muscular spasm where it is felt. Has felt it slightly for one week in both eyes, and has noted a progressive diminution in vision for five days. Temperature 100-100.5. No apparent lethargy. No obvious initial infection. Influenza last October; husband states she has not been well since, markedly unwilling to exert herself, a great contrast to her usual self. Pain on right side of throat has caused some difficulty in swallowing for a few days. **Examination:** Ptosis of left eye, spasm on left side of face at intervals of from 3 to 10 seconds. Synchronous with this is an intense pain in right eyeball, right side of nose and right breast region. Pupils equal and react to light. No knee or ankle jerks. No Babinski. Tache cerebrale marked. Restlessness of lower limbs, particularly the left, which in addition is flexed each time there is a spasm in the left pectoral region, but no pain is felt in legs. Spine not rigid, neck not stiff. No Kernig sign. Bilateral nystagmus, stronger to the right. Tongue deviates to the left. Slight weakness to lower facial group. No tremor or incoordination. Herpes labialis. Hallucination of sight, and it is obvious that only the intense pain keeps her from a drowsy state. The pain spread down the arm, and four days later was occurring in waves in two fingers of left hand, but without spasm. Spasms and pains in breasts were less severe and less frequent. Arm reflexes gone but right knee reflex returning. A late development was a rapid heart and brief attacks of syncope.

November 11. Afebrile for seven days; somnolent but free from pain. Is on digitalis for heart condition.

D. C. American. Age 19. Single. Seen with Dr. J. J. O'Connor. Patient somewhat irrational and slow of speech. On October 10 after a dance, complained of neuralgia over left side of face and forehead; on October 11 began to vomit after taking any solid food. Quit work October 14 on account general weakness. October 15 began to have hallucinations, sings and makes speeches. Several days ago had neuralgia in left arm and left side of scrotum. Is a trifle slow in his actions and responses. Says he sees double. **Examination:** Drowsy condition, answering questions very slowly. Facial expressions normal, no paralysis. Pupils unequal, left smaller; react to light and accommodation. Slight horizontal nystagmus to right. November 5. Nurse reports respirations slower when asleep, but accelerated by talking. During examination they number 36, and suggest a labored effort like a person after exertion. Nothing in lungs to account for this. Upper extremity reflexes equal, also exaggerated abdominal. Suggestion of weakness in left extremal rectus and left face muscle. Is a trifle slow in his actions and responses. Knee jerks very lively. Ankle clonus both sides. **Oculist's report:** Some blurring of outline of nerve heads. Suggests toxic condition rather than a change due to intracranial pressure. October 19. Wh. cell count 14,100. November 4. Wh. cell count 12,400. Blood serum and cerebro spinal fluid give Wassermann test negative. November 11. The course of the disease is sub-acute. Fever of 1-2 degrees for first ten days in hospital. None since. Hallucinations were brief. Present state marked chiefly by somnolence.

S., F. Italian. Age 47. Single. Seen with Dr. L. D. Bacigalupi. September 24, 1919. Patient began having pain in arms, hands and back, and two days later in elbows, wrists and finger joints. Finger joints swollen and very painful; the swelling has been coming and going since. Pain constant since beginning. No pain in knees or ankles. Pain in hips. Says he sweats all the time. No headaches. Complaints of pain in arms and back. Daily fever to 101 degrees. Pupils react well to light and accommodation. Slight nystagmus. **Neuro-muscular**—No atrophy. Tendon reflexes are exaggerated. No clonus or Babinski. Patient perspiring slightly. October 10. Patient has been in a stuporous condition several days, and has developed a paralysis of left side of face. Cannot wrinkle left forehead or close left eye. Whole 7th seems involved; 5, 6, 8 and 9, 10, 11 and 12 O. K. October 25. Great restlessness for at least two weeks, wanders about at night when not restrained. Lies in comatose condition the rest of the time, beginning about the 12th and steadily deepening. Speaks when aroused, but confused from the first. Marked conjunctivitis. Slight palsy left lid. Tongue protrudes slightly to right. Palsy left face muscles. Reflexes of extremities equal and normal. Blood serum and cerebro fluid are Wassermann negative. November 11. Patient afebrile for two weeks; recovering slowly. Lies in semi-somnolent state all day, but is more easily aroused.

K. J. Age 23. Attorney. Seen with Dr. C. H. Thompson. October 29, 1919. **Complaint:** Pains in back of neck; intense neuralgic pains down both arms in paroxysms accompanied by spasms of muscles beginning ten days ago. Within three days vision slightly blurred and saw double. Temperature 101-105. Pulse about 100. Respiration 25-30. No trouble with bladder or rectum. Lies in semi-stupor, but easily aroused. No nystagmus. Slight strabismus. Reflexes in upper extremities exaggerated but equal. Knee jerk in left leg but not in right. Pain and spasm have decreased in frequency and severity for three days. Temperature still 100-102. No leucocytosis. Spinal fluid cell count 20. Wassermann negative. Urine normal. November 3. Still lies in stupor, but more easily aroused. Distinct tendency to ankle clonus. Plantar reflexes normal. Afebrile for two days.

G. G. Age 44. Telegrapher. November 2, 1919. After exertion in running for train noted tingling in left face and above and behind left ear. In few minutes throbbing, sharp twitching began in same region; following day extended to left shoulder and within 24 hours slowly extended to left arm, forearm and hand. The shooting pain was rhythmic and accompanied by contraction of muscles in part affected. Vision blurred and saw double on third day. No bladder, rectal, digestive or locomotor symptoms. Wife noted he was cross-eyed early in the trouble. Began to be drowsy about sixth day and remained so six days; had rambling delirium for few days. **Examination:** Double nystagmus, slight droop to left lid and left extremities. Upper extremity reflexes exaggerated except left triceps which is wanting. Lower extremity reflexes sluggish but equal.

Medical Building.

Original Articles

INTESTINAL FLAGELLATES: A PLEA FOR THEIR PATHOGENICITY.

By JOHN V. BARROW, S. B., M. D., Los Angeles.

A general survey of the literature on flagellated protozoa impresses one with their growing importance. Twenty years ago, they were reported in different human organs as a sort of curiosity, but scarcely to be thought of as pathogenic parasites. However, very recent years have brought a greater realization of their importance as producers of pathology. The amoeba and ciliated balantidium coli were first to gain recognition. Now they have a young army of medical men ready to respect their pathogenic power. What has happened in the role of the amoeba, and balantidium, is beginning to be realized in the case of the flagellated monads.

The influence of the "harmless commensal" literature is much to be regretted as it has doubtless deprived the profession of the report of many cases of pathology due to these parasites.

The conviction of most recent authors has been based almost exclusively on the ability of these organisms to produce dysentery. This is well illustrated by the work of Escamel (1) who from Peru cites one hundred and fifty-two cases due to trichomonas intestinalis. This infection was borne by polluted water. Mello-Leitao (2), Derrieu and Reynaud (3), and Rhamy and Metts (4), all report cases in which dysentery is given as the characteristic pathology. The latter authors even go so far as to state that they never have seen the flagellates in the intestines without their producing dysentery. Their review of a dysentery epidemic due to flagellates is very instructive. There were seventy-eight cases in all with eighteen deaths. The epidemic was traced to impure water. The clinical picture was diarrhea with colicky pains, watery or slimy blood-stained stools, weakness, dyspnea, loss of weight, anemia simulating the pernicious type, jaundice, and urticaria. Later the stools consisted of blood, pus, and active trichomonads. He noted

a moderate eosinophilia. Ulcer of the rectum occurred once.

Prentiss (5) from El Paso, Texas, reports several cases of diarrhea both chronic and acute, in which the cercomonas hominis was the causative factor. In his two autopsied cases there was intestinal catarrh but no ulceration. Chatterjee (6) considers flagellate dysentery a certainty and cites seventy cases in India as proof.

Nearly all the tropical writers emphasize dysentery as the only clinical manifestation of the presence of flagellate infection. Houghwout (7) refreshes us with a broader conception in his most excellent critical review from which I have drawn largely. He cites a case from St. Luke's Hospital, Manila, in which he considers the trichomonas was responsible for the diarrhea, mucous stools, and a small rectal ulcer. He offers no proof that the flagellates were the tissue invaders. His conclusions suggest so well a reason for the clinical picture which so often accompanies "Flagellosis," that I think they should be emphasized here. The effects that might be looked for, are summed up under these six heads:—

First: The production of antigrowth vitamins or growth inhibiting substances.

Second: The production of substances directly toxic.

Third: The unfavorable effects upon the host through the liberation of the metabolic products of the parasites.

Fourth: Mechanical irritation of mucous surfaces.

Fifth: Interference with absorption in the intestine through adherence of large numbers of the parasites, as is the case with lamblia infection.

Sixth: Actual invasion and destruction of tissues with concomitant sequelae.

The above author makes no attempt to prove these points, but clinical findings from my own series of cases are plentiful to substantiate every statement.

The above six points may well be grouped into two or three larger headings, such as, metabolic, toxic, and mechanical disturbances.

With some of my own cases, I wish to show the applicability of these principles. The following table will be more illustrative than a laborious description of a series of twenty-one cases.

In the table, it will be noted that there were three cases of intestinal perforation. From one of these the trichomonas intestinalis was recovered, both in the feces and in the peritoneal drainage. Amebic cysts were present in small numbers in the stool. Involuntary diarrhea lasted while peritonitis was present. The organisms were in overwhelming numbers. The scarcity of the amebae found as against the abundance of monads, could not but impress the observer that the latter and not the former were the real offenders. The other perforating cases were heavily infected with monads while no active amebae were seen. The entire series demonstrates focal bowel tenderness in such a way as to stimulate the belief that one is dealing with early possible perforating spots. The main points of tenderness are colonic and most

Case No.	Gastro-intestinal distress—dyspepsia	Loss of appetite	Loss of weight	Anaemia	Haemoglobin	Irritability	Cervical headache	General weakness	Epilepsy	Asthma	Dizziness and nausea	Diarrheal attacks	Blood in stool	Bowel Tenderness (ulcer)	Perforation and peritonitis	Degree of infection	Other organisms present	Prevailing organism
1	**	0	*	*	77	*	*	*	0	0	*	0	**	**	0	***	0	Trichomonas
2	***	**	**	**	55	*	*	*	0	0	***	**	***	***	0	***	Amoeba	"
3	***	0	0	0	80	**	*	*	0	***	***	**	***	***	0	***	0	"
4	***	**	*	*	55	**	*	*	0	0	***	**	***	***	*	***	Amoeba	"
5	**	**	**	***	25	***	**	*	0	0	*	*	***	***	*	***	0	"
6	**	**	*	*	70	*	*	*	0	0	**	0	**	**	0	**	0	"
7	**	0	0	*	15	***	**	***	*	0	**	0	*	**	0	**	Amoeba	"
8	***	*	**	*	70	***	**	***	***	0	*	*	*	**	0	**	0	"
9	***	**	*	*	70	*	*	*	0	0	*	*	*	**	0	**	0	"
10	**	**	**	**	55	**	**	***	0	0	*	***	**	***	?	***	Amoeba	Lamblia
11	**	**	***	***	40	**	*	*	0	0	**	0	***	***	***	***	Amoeba	Trichomonas
12	***	**	***	***	40	**	***	*	0	0	***	*	***	***	0	***	Ascaris	Lamblia
13	**	*	***	***	35	*	*	***	0	0	***	*	***	***	?	***	Amoeba	Trichomonas
14	**	*	*	*	75	*	0	*	0	0	**	*	**	**	0	**	0	Cercomonas
15	**	**	*	***	45	*	***	**	0	0	**	0	**	**	0	**	0	Trichomonas
16	**	*	*	*	70	**	**	**	0	0	*	0	**	**	0	*	0	"
17	**	**	*	*	70	*	**	*	0	0	*	0	**	**	0	**	0	"
18	**	0	*	*	75	0	0	*	0	0	**	**	**	**	0	**	0	Lamblia
19	**	**	**	***	60	**	**	*	0	0	**	***	***	***	?	***	Amoeba	Trichomonas
20	**	**	**	***	45	**	*	***	0	0	*	***	**	**	?	***	0	"
21	**	0	0	0	85	*	*	*	0	0	*	0	**	**	*	***	0	"

No. 6-a

often caecal, though the small bowel is undoubtedly disturbed from the pylorus to the ileum.

There are two other cases in the series that deserve especial mention because of the appearance of epileptic attacks. Both of these patients are men of 30 years of age. Both were pharmacists at the time of their first attack. Each man was in his third decade when his first attack came. Careful physical and serological examinations reveal nothing to account for the onset. *Trichomonas intestinalis* is found in abundance in each case. One has diarrheal attacks. Both have general bowel tenderness. Each one experiences relief on the administration of laxatives. All known measures have failed to rid them of the flagellates or to give hope of permanent relief from the epileptic attacks. They both feel the influence of the disturbed bowel on their mental condition.

It seems reasonable to think that these cases may demonstrate the elaboration of toxins whose absorption is sufficient to upset the sympathetic balance and thereby induce these epileptiform seizures. The same line of thought seems reasonable to apply to a case of asthma in which the flagellate infection is severe and resists all known treatment. It is remarkable to note in this case that a thorough physic relieves the asthmatic symptoms greatly.

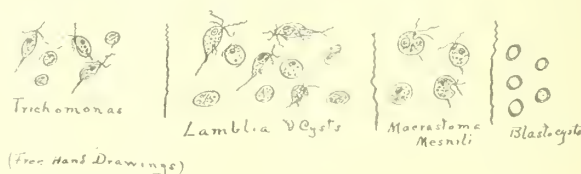
The above cases seem to me very strongly suggestive of the absorption of products elaborated in the intestine by the parasite and absorbed by the host. The other symptoms so common such as cervical pains, malaise, melancholia, loss of appetite, foul breath, nausea, dizziness, excessive mouth mucus, and general sluggishness strongly support the belief in the pathogenicity of these parasites. To substantiate the same line of thought Pollock and Pickard (8) of San Diego have only very recently given a valuable contribution, citing a number of detailed cases.

The locations of attack in the gastro-intestinal tract are variously given. Smithies (9) found

trichomonas intestinalis in the stomach in two cases. Brumpt (10) found it in the colon. Hadley (11) thinks the goblet cell in the caecum is the atrium for perforating attacks of *Lamblia*. Lynch (12) reports cases of simultaneous infection of the mouth and vagina. One author (13) gives the normal habitat of *Lamblia* as the small intestine in man. He is authority for the statement that the caeca of rats and mice harbor *Trichomonas intestinalis*. Outside of the intestinal tract, they have been reported in the mouth, gums, lungs, liver, bladder, vagina, and externally in carcinoma.

The flagellates most often observed in California are the *Trichomonas intestinalis*, *Lamblia intestinalis*, *macrostoma mesnili*, *cercomonas hominis*, and *Blastocystis hominis* (?). There are dancing spores and Leishman-like bodies of which I can find no description.

The *Blastocysts* seem at times to possess definite flagellar motion, but their status has not yet been worked out. It has been thought to be an encysted form of *Trichomonas* but this has not been proven. A comparison of the type of *Trichomonas* most often encountered here and the blastocyst will impress one with their difference, as the following illustrations will show:—



(Free Hand Drawings)

Considerable has been written on the ability of the *trichomonas* to form resistance cysts. Lynch (14) has painstakingly described such forms. From his technic of staining and his illustrations of cysts, I am convinced he was dealing with the active monad with its protoplasmic changes due to the usual effect of stains and fixatives.

I have often observed what seemed to be resting forms, but have no proof that these were not dead organisms. They were completely round and in the fresh specimen no flagella or tail could be made out. There was no clear marginal zone as Lynch describes. The organisms undoubtedly are greatly changed in both size and contour in the process of fixing and staining. During life its extreme activity baffles any attempt at accurate drawings of all parts. This probably accounts for the great number of species described by different workers. In the same coverslip preparation, I have found organisms that meet all the requirements of typical trichomonas—three anterior flagella, undulating membrane and stiff, stubby, fixed tail, alongside of other organisms that make a good picture of the typical trichomastix with three anterior flagella and one recurrent flagellum not adherent to the body to form an undulating membrane. The tail is well marked and in some organisms has one or two well marked flagella. Such an organism has been recently described by Chatterjee (15) as the first appearance of the trichomastix in human pathology.

The technic of finding the trichomonad is simple. One or two small loopfuls of the specimen are mixed with a small drop of salt solution or warm tap water and placed under a cover-glass. Examined with the oil immersion lens. The preparation must be thin and if there are too many currents, the cover-glass should be margined with vaseline or any suitable oil. The stool does not need to be kept warm. The organisms will remain active at room temperature for several days.

We cannot claim any degree of success at culturing these organisms. The method of Ohira and Noguchi (16), inoculating salt solution with infected feces, and incubating has not been satisfactory. We are now using a normal saline filtrate of the stool of the host as media, with some promise of greater success but our results are too incomplete for publication.

No treatment thus far recommended is wholly successful. Most of the vaunted remedies are ameliorative but not curative. Calomel followed by a saline laxative gives the best temporary relief, but in about ten days time, a careful search will reveal the parasites again. It is therefore necessary to repeat treatment many times. Thymol in large doses has considerable value. Emetine and ipecac exert a helpful influence on most cases, if the patient's feelings may be taken as a criterion. Oil of chenopodium and turpentine are very helpful, enemata of kerosene, ichthyol, or allied substances have a marked beneficial effect, while those of methylene blue and sodium bicarbonate have about the same relative value as tap water. Eternal vigilance and variation mark the successful management of these cases in their present status.

In conclusion, I wish to emphasize:—

First, that intestinal flagellosis is relatively common in California.

Second, that their presence begets more pathology than is generally conceded.

Third, that their pathogenicity is not wholly

manifested by dysentery, but rather more often by other signs of an absorptive toxemia.

Fourth, that our present methods of treatment are inadequate for a definitely manifested pathology.

Bibliography—Intestinal Flagellates.

1. Escomel, E. Sur la dysenterie a Trichomonas a Arequipa (Perou) Bull. Soc. path-exot. (1913), 6, 120.
2. Mello-Leitao—cited by Pantham, Stephens & Theobald, P. 624 (No. 13).
3. Derrien et Reynaud. Dysenterie chronique a flagelle nouveau. Bull. Soc. Path. exot. (1913), 6, 120.
4. Rhamy, B. W., and Metts, F. A. Flagellate protozoa as an ethiologic factor of dysenteric diarrhea. Jour. A. M. A. (1916), 66, 1190.
5. Prentiss, Elliott C. Observations on certain protozoa infections of the digestive system. New Mexico Medical Jour. (1915), 208.
6. Chatterjee, G. C. Note on flagellate dysentery. Ind. Jour. Med. Res. (1917), 4, 393.
7. The Tissue-Invasive Powers of the flagellated and ciliated protozoa with especial reference to Trichomonas Intestinalis. A critical Review, by Frank G. Haughwout. The Philippine Jour. of So. B. Tropical Med. Sept. '18. Vol. XIII, No. 5, P217.
8. Protozoal Infections of the Intestines, etc., P. 492. Robert Pollock, M. D., and Rawson J. Pickard, M. D. Am. Jour. Med. So. April 1919.
9. Smithies, Frank. The occurrence of Trichomonas hominis in gastric contents with report of two cases. Am. Jour. Med. Sc. (1912), 144, 82.
10. Brumpt, E. Colite a Tetramitus mesnili (Wenyon, 1910) et colite a Trichomonas intestinalis Leuckart 1879. Blastocystis hominis n. sp. et formes voisines. Bull. Soc. Path. Exot. (1912), 5, 725.
11. Hadley Phillip. The case of Trichomonas. Am. Nat. (1917), 51, 208.
12. Lynch. (Am. Jour. Trop. Dis. & Present. Med. II, p. 627). (N. Y. Med. Jour., May 1, 1915, C. 1, p. 886).
13. Animal Parasites of Man. P. 55, Pantham, Stephens & Theobald. John Beale, Sons & Danielsson, Ltd. London, 1916.
14. Lynch, Kenneth M. Staining of Spores. Jour. Parasit. Vol. 3, 1917, p. 28.
15. Chatterjee, G. C. Indian Jour. of Med. Research, Calcutta, p. 217. Reprint Jour. A. M. A., Dec. 15, 1917, p. 2072.
16. Ohira, T., and Noguchi, 4, 1917. The cultivation of Trichomonas of the human mouth. Jour. Exp. Med., 25; 341.

A PLEA FOR THE EARLIER RECOGNITION OF SUBACUTE INFANTILE SCURVY.

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It is a popular lay notion which unfortunately has found its way into the medical mind that scurvy is rare in California. This belief is accentuated by the facts that the orange, a well known antiscorbutic, is a common fruit, and that most children of the State eat it frequently. An inquiry into the incidence of the disease shows this idea to be erroneous.

We have been able to collect from three San Francisco hospitals, from the records of a few of our pediatric friends and from our own, a series of thirty-nine cases which have occurred since July, 1917. For the most part, these represent the extreme cases that find their way into the hospitals and into the hands of the children's specialist. The majority of them present the well marked symptomatology of the florid type of scorbutus, viz., swollen and bleeding gums, hyperesthesias, subcutaneous hemorrhages, flexion of the thighs, pseudo-paralyses and swollen epiphyses due to subperiosteal hemorrhages. Among them however are

cases with less striking symptomatology, the "scorbute fruste" of the French, the "subacute infantile scurvy" of which Alfred Hess has written in this country. These cases are characterized by a symptomatology just as significant though not as spectacular as are the former. The writers are convinced that this type is much more common in California than is the florid type. We believe that the most of these cases are overlooked and that in reality many uncomfortable and crying babies are sufferers from subacute scurvy. Without a doubt, a spontaneous cure is often effected because the age incidence of the disease corresponds roughly with the time at which mixed feeding is commonly begun.

Mainly with the view of calling attention to this group of scorbutic cases, this paper is presented. California practitioners especially should be cognizant of the disease for there is no more classical presentation of the subject than that given by William Fitch Cheney of San Francisco in 1896 in the Boston Medical News.

In spite of the fact that when fully developed, the florid type of scorbutus presents an unmistakable clinical picture, many cases find their way into the hospitals with a previously made diagnosis of rheumatism although every physician knows that rheumatism rarely occurs during the first and second years of life. This fact is all the more surprising when one considers how rich the literature on the subject has been ever since the first description of the disease was presented to the profession by Thomas Barlow in 1883.

Descriptions of scurvy in the adult first appeared in the earliest medical writing. The Roman armies were afflicted with it. It was one of the disabling factors of military and exploratory expeditions until the arts of canning and refrigeration put an end to it by providing foods other than in the dried state. It is the merit of a Swedish physician, Ingerslev in 1873, first to have caught the idea that babies might be subject to the disease. In 1878, Cheadle in the London Lancet described three cases. These reports initiated an interest in the subject, and in 1883 Barlow reviewed 31 cases that had been reported as "acute rickets" but which he believed were acute infantile scurvy. In 1894, before the Royal College of Physicians in one of the Bradshaw Lectures, he carefully reviewed the literature and reported cases of his own with the result that the disorder has since been known as "Barlow's Disease."

The etiology of infantile scurvy has excited much discussion. In 1902, Sill reported upon 179 infants fed on boiled or pasteurized milk among whom 97 per cent. showed signs of either rickets or scurvy or both. The American Pediatric Society undertook a survey and appointed a committee to investigate the subject. The committee made an exhaustive inquiry and in 1898 submitted a report which embodied a study of 379 cases. Their conclusion was that the disease "is due to a diet unsuitable to the individual" and that certain named proprietary foods seemed commonly causative. Beyond this, the committee refused to be bound. In 1907, in the Journal of Hygiene of

Cambridge, the Scandinavian investigators, Holst, Frolich and Von Furst reported a series of experiments in which they fed guinea pigs on dried grains. The animals died within four to six weeks and showed at autopsy scorbutic changes. As a control they fed other guinea pigs on a starvation diet of cabbage, dandelion and carrots until they had lost 30% to 40% of their body weight. On post mortem these showed no indications that they had suffered from scurvy.

The literature of the last ten years is replete with discussions regarding the exact etiological factor involved, but beyond the general conclusion that scorbutus is due to the absence of some substance, (vitamin) found in fresh food, there is little known of the underlying cause. Baumann and Howard, in 1912, working on the metabolism of scurvy, found that during the course of the disease, the sulphur balance is sustained; that sodium and chlorine are retained when fruit juice is fed but that they are excreted in excess of intake before such treatment is instituted; and that calcium, potassium and magnesium are also retained during the period of treatment.

In order to determine the question which has been raised by McCollum regarding the possibility that putrefactive bacteria of the intestine might be causative agents of scorbutus, Torrey and Hess in 1918 did a series of experiments on guinea pigs which they fed on a diet that caused scurvy and later on antiscorbutic foods which cured the disease. The intestinal flora in both instances was that found in any diet rich in carbohydrates, viz., *B. bifidus*, *B. acidophilus* and a few streptococci and *B. coli*, mostly organisms antagonistic to putrefaction. They confirmed these experiments by observations on scorbutic infants and arrived at the conclusion that neither in animals nor in infants is scurvy due to an overgrowth of proteolytic intestinal microorganisms.

The fact that scurvy is known to develop in a small percentage of breast fed infants and in some fed on raw milk, leaves the question of an exact etiology open. But about one thing there is unanimity of opinion, and that is that the feeding of antiscorbutics, orange juice, tomato juice, potato and the like is always indicated and that these foods are equally valuable in the prevention and in the cure of the disease. Therefore a failure to advise mothers regarding the prophylactic use of such substances can never be justified.

The diagnosis of the most frequent, though least recognized form, is easy after a careful history has been taken and clinical observations made. The mother complains that the child is "fussy" and irritable and that it cries when she takes it up. There usually is no swelling of the epiphyses at this stage but it is probable that there is a history of easy bruising and there may be hemorrhagic spots somewhere over the body. One of our cases showed no other sign than a black and blue ring around the buttocks where a tightly pinned diaper had made pressure, except some tenderness referable to the bones. The diagnosis of subacute scurvy was justified because both symptoms cleared up promptly when the child was given orange juice

PLATE I
A—Subperiosteal hemorrhage.
B—Beginning bone deposit.

A →



PLATE II
A—Layer of subperiosteal bone.

and potato cream—a therapeutic test which can easily be applied to all suspicious cases with an assurance that no harm will be done even if some other cause of tenderness and easy bruising be found. In the category of subacute forms may be placed several reported cases in which hematuria was the predominant or only symptom of the disease—a symptom which rapidly vanished when antiscorbutic foods were added to the dietary.

In this connection it is interesting to note that a disinclination to move the legs may be a symptom of that common disorder of female infants,

PLATE III
A—Marked bone deposit.
B—"White Line" of Frankel.

cystitis. It also occurs in syphilitic involvement of the bones.

As in the fully developed florid form, a careful history will usually elicit the fact that the child has been fed on an overheated food. In cases developing in breast fed infants, the possibility of some definite constitutional disturbance on the part of the mother should be considered. The beginning of the disease is usually gradual. Close questioning will usually indicate that there was a period of anorexia, head sweating, pallor, anemia, restlessness and discomfort of varying degree before the onset of the alarming symptoms. The major symptoms appear with dramatic suddenness. The child seems to have become paralyzed, and after a few hours or days of pseudo-flaccid palsy, it assumes a characteristic dorsal position with flexion and outer rotation of the thighs, or if the upper extremities are affected a pseudo-palsy simulating the Erb type. Swellings appear at the region of the epiphyses. The most commonly affected are the lower epiphyses of the femur; next in frequency the lower epiphyses of the tibiae; after these the epiphyses of the hip joint and the upper epiphyses of the humerus. The swellings are due to hemorrhages by which the periosteum is raised causing great tenderness. Any epiphysis in the body may be the site of the hemorrhage. The growth cartilages of the vertebrae may be involved in the process and such cases have been mistaken for acute Pott's Disease. Hemarthroses are also found while such a bizarre occurrence as a hemorrhage under the periosteum of the orbit resulting in a unilateral proptosis which occurred in one of our cases has been cited by Debuis as occurring in some 10 per cent. of the 397 cases studied by the committee of the American Pediatric Society. Even before these major symptoms develop, an examination of the mouth may reveal spongy

gums which bleed on the slightest trauma. At the same time, the skin may show evidence of cutaneous or subcutaneous hemorrhages. As well as the skin, any mucous membrane may be the site of a hemorrhage. If this occurs along the course of the gastro-intestinal tract, melena may be in evidence—sometimes it is even the earliest symptom. Fever may or may not be present. Severe and neglected cases frequently show the cardio-respiratory syndrome first described by Hess in 1917. It consists of a broadening of the base of the heart as shown by percussion and radiograph, and a marked increase in pulse and respiration rate. Hess believes this condition is due to a nerve affection similar to that found in the "deficiency diseases," adult scurvy, beri-beri and pellagra. Since reading his communication we have twice encountered the syndrome which undoubtedly we overlooked in our earlier cases.

The chance of confusing scurvy with other conditions is remote. The rarity of rheumatism during the first and second years affords a sufficient differential diagnosis. Syphilitic epiphysitis is not usually accompanied by evidences of external bleeding, and the history and concomitant symptoms of lues may be elicited. Sarcoma is usually limited, at least during its earlier stages, to a single bone, and the generalized tenderness of scorbutus fails to develop. Osteitis is also a disease without great hemorrhagic tendency and runs a characteristic febrile course. Furthermore, radiographs of these varying conditions are pathognomonic.

In 1909, Riesenfeld reported a case with accompanying radiographs in which there were subperiosteal hemorrhages and changes in the epiphyses. He described the latter as "a horizontal irregular shadow seen at the epiphyseal line and giving the end of the shaft a distinctly hammered out appearance." Talbot, Dodd and Petersen, studying the radiographic appearances of experimental scurvy in guinea pigs, arrived at the conclusion that the "white line," first described by Frankel, is a constant sign of the disease and that it persists long after clinical recovery, indicating a slow process of repair.

It is our belief that the white line is of no great consequence in making a diagnosis in the early cases. The early radiographic picture reveals little more than subperiosteal hemorrhages. This condition is shown on Plate I. The hemorrhage is followed by proliferation of bone tissue as is indicated on Plate II. If the hemorrhage has been profuse, particularly along the shaft of the bone, there is a subperiosteal new bone formation which varies in amount with the extent of the bleeding. This condition is well illustrated by Plate III which also shows the "white line" of Frankel.

The facts here presented warrant the conclusion that scurvy is not rare amongst children who live in the vicinity of San Francisco. Most of the cases come to the clinics undiagnosed, a state of affairs which suggests that the less evident subacute cases are being overlooked. It is the hope of the writers that this paper may emphasize the

need of a close scrutiny of young children in a search for the "fruste" forms of scorbutus.

We are indebted to Professors Cheney and Yerington of Stanford University Medical School and to Doctors Holsclaw and Fleischner of the Children's Hospital and Dr. Adelaide Brown for the opportunity to study their records.

The radiographs are by Doctors Bailie and Chamberlain of the Children's Hospital; case records from the service of Doctors Porter and Holsclaw.

410 Schroth Building.

1015 Investment Building.

A CASE OF TETANUS SUCCESSFULLY TREATED BY ANTITOXIN.*

By H. P. JACOBSON, M. D., Los Angeles.

In view of the uncertainty that still seems to exist as to the appropriate treatment of tetanus, and because of the desirability of putting all cases of recovery on record, the following case may prove of interest. It represents a type which required heroic measures, and in which vigorous serum treatment administered alternately intraspinally, intravenously and locally has brought about a rapid and complete recovery.

The history of the case is as follows:

S. L., male, aged 12 years—American born of Armenian parentage, previously has never had any serious illness. His present illness dates from November 22nd, 1918, when he stepped upon a rusty nail, receiving a slight superficial wound in the plantar surface of the right foot. The injury was attended by the mother and left to heal by itself. Seven days after injury the patient began to complain of stiffness and some pain in the neck, which progressed rapidly and extended to the muscles of the jaw. On November 30th his jaw began to be stiff and interfered with opening and closing of the mouth. By that time the family had decided to call a physician, who diagnosed the case as tetanus, and administered 1500 units of anti-tetanic serum subcutaneously and promised the family to return the following day. For some reason the physician did not return, and the patient meanwhile grew rapidly worse. The writer was called on December 2nd, about 4 p. m.

The patient was in bed suffering from excruciating pains, restless and scared. Upon my approaching the bedside he was seized with convulsions lasting about a minute, returning at frequent and irregular intervals and accompanied with a profuse perspiration. The forehead was wrinkled, angles of the mouth retracted, the head thrown backward, producing the typical sardonic grin. The jaws were completely locked. The muscular contractions were generalized, extending over the whole body and giving a board-like sensation to touch. The forearms were flexed upon the arms and rigidly fixed with clenched fists. The spine was arched forward, producing a sharp concavity on the posterior aspect of the trunk. The lower extremities were extended and completely fixed. The Kernig sign was very marked, and deep tendon reflexes very much exaggerated. Babinsky and Oppenheim signs were negative. The patient was removed to the hospital where the following treatment was accried out:

Dec. 2nd, 7:30 p. m. Lumbar puncture was made, but no fluid withdrawn. 10,000 units of anti-tetanic serum administered intraspinally. The in-

*Read before the Forty-eighth Annual Meeting of the Medical Society, State of California, Santa Barbara, April, 1919.

jured foot was incised about 2½" in length and ½" in depth, laying the wound wide open. The wound was then cauterized with tincture of iodine, and before inserting the drain and bandaging 5000 units of antitoxin were injected in the site of incision. The patient was removed then to an isolated room, dimly lighted and away from all possible noises.

Dec. 3rd. 14 hours after the first treatment, encouraged somewhat by a slight improvement, 10,000 units antitoxin were given intravenously and 2.0 cc. of 25% sol. of magnesium sulfate intraspinally. At 7:30 p. m. the same day the patient received 5000 units of antitoxin intraspinally, 10,000 units intravenously and 1 cc. magnes. sulfate intravenously.

Next morning he was much improved, spent a fairly good night with few spasms, temperature, pulse and respiration better, the muscles of the upper extremities well relaxed and a beginning relaxation of the facial muscles. 15,000 units more of antitoxin and 2 cc. mag. sulfate intraspinally were given and again in the evening 10,000 units of antitoxin intravenously.

Dec. 5th. Still further improvement in the condition of the patient. 10,000 units of antitoxin intraspinally and 2 cc. of mag. sulfate intravenously. At this time he was able to take soft nourishment by mouth. At 8 p. m. of the same day he received again 10,000 units intravenously and 2,000 units of antitoxin at the site of infection, also 2 cc. of magn. sulfate intravenously.

Dec. 6th. 15,000 units intravenously and 2 cc. of magn. sulfate intravenously and later in the day after a consultation with Dr. John V. Barrow, again 10,000 units of antitoxin intramuscularly. The patient continued to improve rapidly, and 24 hours later, Dec. 7th, 9 p. m., he received a final dose of 5000 units of antitoxin at the site of the wound. The patient was restless and took nourishment well. Sedative treatment was discontinued.

On Dec. 13th the patient sat up in a wheel chair and on Dec. 20th, 18 days after admittance to the hospital, he was discharged as cured.

Summary of antitoxin treatment.

	Intraspinal	Intravenous	Intramuscular
Dec. 2.....	10,000		5,000
Dec. 3.....	5,000	25,000	
Dec. 4.....		20,000	
Dec. 5.....	10,000	10,000	2,000
Dec. 6.....		15,000	10,000
Dec. 7.....			5,000
	25,000	70,000	22,000

Total, 117,000 units.

Comment: In view of the wide divergence among authorities as to the best method of administration of antitoxin I can not but be favorably impressed with the above method of simultaneous administration. Leaving aside an academic discussion as to what path the toxin may take on its way to the central nervous system, one thing is certain—that we deal here with a localized toxin factory from which toxin is continually absorbed along the nerves, finally reaching its ultimate destination, the nerve cells. The problem then resolves itself into bringing toxin and antitoxin together within the shortest period of time and under the conditions most favorable for a neutralization to take place. There are three alternative lines of attack available.

1. The local factory of toxin.
2. The line of transit of the toxin to the central nervous system which includes the sub-

cutaneous, intramuscular and intravenous routes.

3. The central nervous system itself.

In view of this the administration of antitoxin jointly or alternately-intraspinally, intravenously, intramuscularly and locally seems the most rational and promising method of treating tetanus.

Investment Bldg.

Instructor Medical Department U. S. C.

Book Reviews

Never-Told Tales. By Wm. J. Robinson. 14th edition. New York: Critic and Guide Company. 1917.

These simple and true stories, well told by the renowned prolific and fearless author, surely are worth reading. In the memory of every experienced physician they must evoke reminiscences of similar experiences. Physician and layman will find ample food for thought and broadening of their mental horizon.

V. G. V.

Urology. By Victor C. Pederson. 991 pp. Illustrated. Philadelphia and New York: Lea & Febiger. 1919. Price, \$7.00.

In this work the author presents a most thorough and up-to-date textbook on the subject of urology. It is an excellent collaboration of the author's well rounded out literary knowledge of the subjects, plus his vast clinical experience. The grouping of the subjects is most original, but has been so well worked out as to cause no confusion in following any particular phase. The chapters on urethroscopy, the bladder, the ureters and renal functional tests, are up to the minute in these everchanging subjects and will be of great benefit to anyone interested in these specialties.

There are many typographical errors throughout the book, which should be corrected in a later edition. The author has made no mention of Hunner's ulcer of the bladder, which is a well defined pathological entity. The work, as a whole, is a complete and modern textbook and will prove of value both to the student and the practitioner interested in the subject of urology.

H. K.

Surgical Clinics of Chicago. Volume III, Number 3. (June, 1919.) Octavo of 287 pages, 118 illustrations. Philadelphia and London: W. B. Saunders Company, 1919. Published bi-monthly. Price, per year, paper, \$10.00; cloth, \$14.00.

R. L. Moodie: Studies in paleopathology; ancient lesions and the practice of trephining in prehistoric times. D. N. Eisendrath: Injuries of joints in war and in civil life. B. F. Davis: Cyst of the urachus. Gustav Kolischer and J. S. Eisenstaedt: Tumors of the urinary bladder. W. E. O'Neil: Persistent patent omphalomesenteric duct. B. F. Lounsbury: Plastic repair of the heel. W. F. Hewitt: Indications for Caesarean section. V. D. Lespinasse: Sterility. W. M. Harsha: Fractures. T. J. Watkins: Care of suppurating wounds following abdominal section. R. T. Vaughn: Hematoma of right rectus muscle. E. L. Moorhead: Stricture of esophagus. Gonorrheal spur on os calcis. C. E. Humiston: Demonstration of five cases. F. B. Moorhead and K. W. Dewey: Composite odontoma. G. L. McWhorter: Surgical treatment of empyema. A. E. Halstead: Diverticula of esophagus. Karl A. Meyer and W. F. Moncreiff: Volvulus. A. J. Ochsner: Umbilical hernia. Intestinal fistula. Excision of coccyx and repair of ventral hernia. Carl Beck: Extensive osteomyelitis

with necrosis of tibia. Carcinoma of upper eyelid. Webbed fingers. Dr. Gatewood: Duodenal ulcer. A. D. Bevan: Obstruction of common bile-duct. Brodie abscess. Rodent ulcer of face. Pilonidal cyst. Gastrotomy on baby for removal of open safety-pin. Tumor of urinary bladder. Amebic abscess of liver.

Manual of Exercises for the Correction of Speech Disorders. By May Kirk Scripture and Eugene Jackson. 236 pp. Illustrated. Philadelphia: F. A. Davis Company. 1919. Price, \$2.00.

Outside of stammering and cognate speech defects, by Blumel, which I reviewed in this Journal years ago, nothing in the way of a practical manual for the treatment of stuttering has appeared except the present volume by Mrs. Scripture. It is a book of value principally to teachers of speech disorders, and could scarcely be used by the layman or physician unacquainted with the general subjects.

In the preface a very worthy plea is made for early correction, first in the home and then in the primary schools. Undoubtedly this would go far to obviate defects which at a later period prove a brake to the efficiency of the individual. With truth the author insists that parents should always demand of their children even at the very beginning of speech, distinct utterance, no baby talk; no elisions of syllables, no slang, no short grunts for polite answers, no carelessness in thought or speech, and finally no nervous habits should be allowed to creep into the speech, such as hesitation, catching breath, etc.

The exercises themselves are all in practical use in the Vanderbilt Clinic. The melody cure of her famous husband is barely mentioned and no credit is given to him for it, although the principle is used over and over again in the exercises. H. H.

Milk. By Paul G. Heineman, Ph. D., Director of the Laboratories of the United States Standard Serum Company, Woodworth, Wisconsin. Octavo of 684 pages with 237 illustrations. Philadelphia and London: W. B. Saunders Company, 1919. Cloth, \$6.00 net.

The author was for thirteen years connected with the Department of Hygiene and Bacteriology in the University of Chicago, and his work is timely and exhaustive in its discussion of milk and milk products. The many illustrations and tables and the careful bibliography which completes each chapter make this a valuable reference book for scientific workers in the various problems connected with the milk supply of cities. Commercial and scientific advances are all carefully illustrated and discussed, and the publications of the United States Department of Agriculture, the American Medical Association and the public health associations of the country have been thoroughly worked over in gathering material for this book. The best milk law of the country, that of New York City, is quoted in full, as well as the standards for the production of certified milk. Copies are given of dairy score cards, and the method of scoring of dairies is thoroughly discussed.

Apropos of pasteurization before shipping into New York, the New York law requires that milk pasteurized outside the city limits should contain less than 300,000 bacteria per c.c., until it reaches the consumer. To secure this bacteriological content requires the transportation in refrigerator cars and continuous holding of the milk below 50 degrees until it reaches the consumer. An exhaustive treatise on the problems of the milk supply in large cities is a welcome addition to the libraries of public health specialists and those concerned in the welfare of childhood, as well as to the large group

teaching home economics in the high schools and universities throughout the country. Such a contribution Dr. Heineman has made in this book.

A. B.

Tuberculosis of the Lymphatic System. By Walter Bradford Metcalf. 216 pp. Illustrated. New York: Macmillan. 1919.

This volume is very timely and can be recommended as an acquisition to every physician's library, particularly the general practitioner. The author has briefly, but thoroughly, reviewed every phase of tuberculosis, beginning with anatomical considerations and ending with treatment. There is practically nothing new in the entire book. It is essentially a resume condensing all the known data on tuberculosis. The various theories regarding the etiology of tuberculosis are given considerable space, including the most recent one—that all tuberculosis takes its inception in childhood. Under diagnosis, the various tuberculin tests are carefully and accurately outlined, a valuable aid to the beginner who wishes to perform them. Under treatment, the author particularly recommends the use of long continued doses of tuberculin as preferable to surgical treatment, and states if general building-up processes, "combined with tuberculin therapy properly administered were used the surgical part of the treatment might be largely dispensed with." He also recommends the use of the X-Ray.

W. C. V.

Treatise on Cystoscopy and Urethroscopy. By Georges Luys. Translated and edited with additions by Abr. L. Wolbarst. 386 pp. Illustrated. St. Louis: C. V. Mosby Company. 1918.

As the translator states in his preface, the book is "frankly a plea in behalf of direct vision cystoscopy and urethroscopy," done especially with Luys' instruments. An interesting historical review of the development of the urethroscope and cystoscope is given, which describes particularly the European models while the most popular American types are not mentioned.

The chapter on urethroscopy covers the subject fairly well, and is well illustrated, especially on the posterior urethra and a good working knowledge can be obtained. An axiom is given in the contra-indications to urethroscopy, which can be remembered to advantage, "the urethroscope should never be employed in a canal which has not been previously studied and dilated." The section on the catheterization of the ejaculatory ducts is well presented and the proper indications for its use is best illustrated in the case that is cited. In the section on the treatment of prostatic hypertrophy endourethrally, no mention is made of Young's Punch Operation, which in many cases can be used to better advantage than the galvano-cautery.

Considerable knowledge of cystoscopy can be obtained from the pages devoted to this subject, though it is written particularly from the standpoint of direct vision cystoscopy with air dilatation. The section on kidney function tests merely mentions the subject and author states, "ureteral catheterization is extremely limited, much more so than in the exploration of the ureters and pelvis; and it should be employed only in such cases in which my 'urine segregator' cannot be utilized," which is a very different point of view from the American urologists.

The galvano-cautery, through the direct vision cystoscope, is advised instead of fulguration in treating bladder tumors.

In conclusion the reviewer is rather impressed with the book chiefly because of the operative possibilities offered by the direct vision instruments, which we find rather difficult to do with the indirect.

J. R. D.

County Societies

ALAMEDA COUNTY.

At the October meeting of the Association, Dr. Stanley F. Berry described the treatment of the wounded soldiers at the zone of attack in a most interesting manner, and also answered a number of questions.

Fracture, Dislocation at the Ankle Joint, Varieties and Treatment, was the subject of Dr. George Rothganger's paper.

1. The correction of the dislocation of the talus usually corrects the displacement of the bony fragments.

2. In the anterior, external and posterior dislocations the foot should be put in the over-corrected position, but not in the internal dislocations.

3. The reposition of the malleolus (or torn deltoid ligament) is of surpassing importance in comparison with any reposition of fibular fragments.

4. Graded exercises to develop the strength of the ligaments before the foot bears the full body weight.

Dr. C. A. Wills showed a number of slides of war fractures after which matters of importance to the Association were discussed by Mr. Hartley F. Peart, counsel, League for the Conservation of Public Health.

The Association is indebted to Dr. L. P. Adams for arranging the program.

The Oakland Hospital Corporation held a dinner Friday evening November 7, at which some fifty of the leading professional and business men of Alameda County were present.

The main topic of discussion was the building plans. The consideration of the plans was simplified by lantern slide projection.

Dr. and Mrs. E. N. Ewer have just returned from New York, where the doctor attended the Clinical Congress, American College of Surgeons.

Drs. Don D. Weaver, T. C. McCleave and G. T. Pomeroy have returned from the service.

Dr. Pomeroy will leave again in a few days for Constantinople, to systematize the work in the hospitals of the American Committee of Relief for the near East. The doctor expects to be absent a year.

At the November meeting of the Merritt Hospital staff, Professor Carl Schmidt of the University of California discussed the Immunity Properties of Proteins.

Dr. George Rothganger at the request of the staff repeated the paper he read before the Alameda County Medical Association.

The following improvements are approaching completion at Arroyo Sanatorium:

1. A new and adequate water supply both for institutional use and for irrigation; together with an adequate fire-protection system. Over 100,000 gallons of water a day will be pumped from the lower gravel levels of the Arroyo del Valle into storage reservoirs on the high ground of the Sanatorium reservation. A special fire pump will give the necessary high pressure through a system of hydrants installed at strategic points.

2. A new medical and administration building adjoining the present infirmary. This is being well equipped for X-Ray, laboratory, dental, nose and throat and surgical treatment. In addition it has sufficient space for administrative purposes and the reception of visitors.

3. A service building containing besides well arranged sleeping rooms for the male help a large recreation room with an open fire-place, built-in book cases and wide windows, pleasant dining rooms for the members of the staff and for the child patients of the institution together with a kitchen and store room.

4. A service building, the upper floor of which is devoted to sleeping apartments for the women

help with a large recreation room similar to the one in the men's building, the lower floor being arranged in four suites or apartments with folding beds and separate bath and toilet facilities, intended primarily for married couples.

5. The opening of the children's building. This beautiful building is quite apart from the main institution so that the little patients will not come in contact with the adult cases. There are four open wards and accommodation for about thirty children. The ground behind this building is well adapted for playground purposes and the children will have every facility for the exercises suited to their condition.

6. School for Training Nurses attendants. This is under the supervision of the State Board of Health and will offer opportunity to women who wish to fit themselves for service in large public sanatoria. There will be lectures in Elementary Physiology, Anatomy, Pharmacology, Dietetics, Hospital Ethics and the Social Aspects of Disease, in addition to practical experience in care of the sick.

7. Installation of a social service department to co-operate with existing agencies in the localities from which the patients come in the discovery of contact cases, the care of the patients' families and the removal of the causes which have operated to produce the disease.

Psychology and Medicine.

A new step of progress in the service of the Extension Division of the University of California was made at Oakland on Wednesday, November 12, when Professor George M. Stratton of the psychology department of the University began a course of lectures on Psychology in its relation to Medicine, before more than twenty physicians and dentists.

The class was inaugurated with a dinner given in the Hotel Oakland to Professor Leon J. Richardson, director of University Extension, and Dr. Stratton, the lecturer.

As explained by Professor Richardson, this course marks a new step in the development of the University's policy, in that the University for the first time is prepared to offer its most advanced and highly technical courses to any group of citizens qualified to take the instruction. This plan will be carried out wherever such a group of persons makes application for a course, provided the professor in charge of the subject can find time in his work on the campus to deliver the lectures.

The University is now considering having Professor Stratton conduct a similar course of lectures in San Francisco beginning in January.

The following physicians and dentists of Oakland registered in Professor Stratton's course, given in the Dalziel Building:

Dr. Stanley F. Berry, Dr. Herbert J. Samuels, Dr. J. Louis Lohse, Dr. William S. Kuder, Dr. Daniel Crosby, Dr. J. W. Stark, Dr. Ergo Majors, Dr. F. R. Makinson, Dr. C. H. Rowe, Dr. Florence Sylvester, Dr. Francis M. Shook, Dr. Roderic O'Conner, Dr. A. M. Smith, Dr. J. W. Calkins, Dr. J. F. McMath, Dr. C. F. Jarvis, Dr. William Porter, Dr. Harry P. Carleton, Dr. Ruby L. Cunningham, Dr. J. L. Pease, Dr. L. P. Adams, Dr. Richard A. Bolt.

CONTRA COSTA COUNTY.

The Contra Costa County Medical Society met in regular monthly meeting the evening of November 1, 1919, at the home of Dr. W. E. Cunningham of Richmond.

The program was arranged with Drs. J. Wilson Shiels and Harold Brunn of San Francisco as the speakers of the evening. The one made a plea "For a more thorough examination of the head and neck; for the more perfect diagnosis of disease," and the other talked on "The surgical diseases of the gall bladder." Both papers were highly in-

structive and were appreciated by all the members present.

It was voted to hold our next annual meeting and banquet at the Hotel Oakland on the evening of November 29th, after which the entire society with their ladies will attend a theater party.

After the transaction of the regular business Mrs. Cunningham served a supper interspersed with good music and cigars which kept all present until the "small hours."

Those present were: Drs. J. Wilson Shiels, Hall Vestal, L. S. Hely, Harold Brunn, U. S. Abbott, J. Beard, C. T. Wetmore, H. N. Belgium, C. R. Lipp and wife, C. R. Blake, E. Merrithew, Mrs. Jennie Charkoph, M. Keser, G. M. O'Malley, P. C. Campbell, W. E. Cunningham, C. E. Abbott, H. L. Carpenter, E. E. Johnson, W. W. Fraser.

The Contra Costa County Medical Society met at Martinez as the guests of the Martinez physicians, in the Court House on the evening of Saturday, September 20, 1919, at 9 o'clock, and listened to one of the most interesting and instructive lectures ever given to the society. Dr. Emmett Rixford of San Francisco was the speaker and spoke on fractures, dealing with the subject more particularly from the mechanical point of view.

Dr. Rixford was voted the thanks and appreciation of the Society.

After the transaction of the regular business and the adoption of a portion of the proposed new fee table, the members and visitors adjourned to a local restaurant where a very pleasing and appetizing lunch was served.

Those present at the meeting were: Drs. Wetmore, Camp, Johnson, Sweetser, Fitzgibbon, Neff, Cook, Campbell, Merrithew, Fitzpatrick, Bell, McCullough, Van Tyne and Bird.

KERN COUNTY.

The regular monthly meeting of the Kern County Medical Society was held at the County Hospital on the night of October 17, and was called to order by President Hamlin. The expected report of a committee appointed to draft a new fee-bill, together with an unusually interesting program called out a large attendance.

The scientific program, in charge of Drs. Jas. P. Hull and Joe Smith was now opened by Miss Bradley, the county and city bacteriologist, who discussed certain errors in the taking of specimens for laboratory examination. A guinea-pig, recently inoculated with suspected tuberculous material, was also dissected as a demonstration.

Dr. Hull now presented for diagnosis, a case of probable anesthetic leprosy in an adult male, native of Mexico, which proved interesting. A child with talipesequino-varus was anesthetized and the forcible correction of that deformity was demonstrated by Dr. Hull.

Dr. Joe Smith presented a discussion of coxa vara, with X-ray pictures of a case, and also of a probable beginning case in a young girl.

Dr. Hull also presented a case illustrating a remarkably good functional result in an old infected compound fracture of the tibia and fibula.

The society then adjourned to the dining room for refreshments and relaxation, both of which were enjoyed by all present.

LOS ANGELES COUNTY.

Medical meeting of October 16 1919, took place at 8:15 p. m. in the Normal Hill Center Auditorium.

Dr. W. T. McArthur, presiding, mentioned that the Arrow Theater of the Hamburger building is no longer available as a meeting place and that the Normal Hill Center Auditorium will only serve for this time. The Friday Morning Club will probably be our future quarters.

The Nurse Anesthetist Condemned.

At the regular meeting of the Los Angeles County Medical Association, October 16, 1919, an instructive and intensely interesting paper was presented by Dr. Walter R. Crane, entitled "The Lay Anesthetist."

The paper dealt comprehensively with every phase of the situation involved in the use of "Anesthetic Technicians," laying emphasis on the danger and injustice to the public, and the growing opposition on the part of ethical members of the profession to the use of the non-medical, or nurse anesthetist, who, although without basic medical training and with only superficial technical knowledge of etherization, is nevertheless, in reality, intrusted with the patient's life.

He quoted extensively from authorities and observers all over this country and abroad regarding this subject, showing that the consensus of opinion is that lay anesthetists have no place in properly regulated hospitals, or in the private employ of surgeons; that the lives of patients are unduly jeopardized merely for the financial remuneration of the individual or concern employing them.

He cited various authorities in other states than California regarding the legal aspect, and the opinions were to the effect that the surgeon who employs, or the hospital which countenances such practices is liable in case of any accident which may occur either directly or indirectly as a result of anesthesia so administered.

The paper was extensively and favorably discussed by many present and at the close, the following motion was introduced and unanimously adopted by rising vote:

"Resolved, That the Los Angeles County Medical Association go on record as in favor of the limitation of the practice of anesthesia to regularly licensed physicians and surgeons."

"Clinical Interpretation of Scarlatinoid Rashes" was discussed by Dr. Moses Scholtz.

Scarlet fever is not a well defined clinical unit; it is subject to many variations and anomalies and its diagnosis can not be made on the skin symptoms alone but mainly on the streptococci born complications, suppurating glands, angina and glomerular nephritis, and the spreading of contagion. Desquamation is merely an expression of the intensity of the preceding erythema and it has no pathognomonic significance. Scarlatinoid erythema is also not an independent entity but merely a symptomatic rash caused by all varieties of systemic toxins.

The differentiation of scarlatinoid erythemata can not be made on purely dermatological grounds but essentially on the associated clinical symptoms and the mode of development.

Nosologically scarlatinoid rashes should be regarded as an erythematous type of the great generic group of erythema multiforme.

Spontaneous Rupture of Left Ventricle.

Carl Johnson, M. D.

This patient, a man of sixty, while lacing his shoes, suddenly pitched forward to the floor and died. Had been blind for several years. There was no history or symptoms of syphilis. He had been in good health, doing such work as gardening and chopping wood, but had not seemed as strong during the past few months as usual. He was, however in about his ordinary health until six days before his death.

At that time he had severe pains in the gastric region during the night and was given an opiate. His temperature was normal, pulse 76, of good quality but intermitting two or three times per minute. The heart sounds were normal except for some indistinctness, or a distant quality. He complained of pains, principally in his stomach, but also extending down both arms.

He was given two grains of calomel, followed by a saline, and felt much better the following day. His illness was attributed to fish which he had eaten eighteen hours before the onset of his illness, and which had been cooked twenty-four hours at the time he ate it.

Was seen again three days later two days before his death. At that time the only pain was under his left shoulder blade. This had been quite severe at times, but stopped entirely, and he had no more pain until the time of his death. His temperature at this time was normal, pulse 74, regular, and the heart sounds were normal, but indistinct.

He was apparently in his usual health from this time until his death, two days later, except that he complained that he did not feel like smoking. The morning of his death he ate breakfast as usual, shaved, took a bath, went upstairs to his room and lay down for a while, and evidently began dressing as he had laced one of his shoes when he was found dead by the side of the bed.

The autopsy, done a few hours after death, showed the pericardium filled with partly clotted blood, and a rupture an inch and a quarter long in the most prominent part of the left ventricle, in the center of a brownish degenerated area about the size of a silver dollar. The other organs were normal, except for a rather marked congestion of the kidneys. The heart valves were normal.

Dr. Grover kindly made an examination of the heart and submits the following report:

"Examination of ruptured heart was made by taking a section from the periphery of the rupture to a point about three centimeters away from the same, and a second section from another part of the ventricle which appeared to be normal.

"The section from the ruptured area shows a marked fatty degeneration or infiltration which has completely destroyed most of the muscle fibers, in the area near the rupture. The fibers further away show cloudy swelling, brown atrophy and necrosis. There is some inflammatory exudation in the area, consisting of polymorphonuclear leukocytes, endothelial leukocytes, eosinophiles, plasma, cells and fibroblasts.

"The other section shows more or less normal muscle fibers with here and there large collections of the same inflammatory cells noted in the other section, except that here there are almost no fibroblasts. There is evidence of myocarditis of rather long standing as shown by the large amount of fat and necrosis present, which so weakened the wall that the rupture occurred in the most necrotic portion. There is evidently an acute exacerbation of the process, as evidenced by the second section.

"Whether the myocarditis present is of infectious origin or whether it is due to some interference with the coronary artery, I am unable to say."

In view of all the facts, it would seem probable that there was a long standing degeneration of the heart muscle, probably caused by a lesion of the coronary artery, and that the fish poisoning started an acute inflammatory process which caused the rupture.

Dr. Walter Brem: The only case I have seen was a rupture of an aneurism of the ventricle. The rupture might have occurred without the fish poisoning, although the presence of polymorphonuclear leukocytes would indicate that that might have been the exciting cause.

Dr. Joseph King: Several cases have come under my observation. There is usually a history of severe pain, and the patient may live for some time after a small rupture. The pain is usually followed by a persistently rapid pulse, although the patient may feel fairly well.

Dr. George L. Cole: I was much interested in hearing Dr. Carl Johnson mention the fact of severe pain preceding the cardiac rupture. I witnessed the death in one case of cardiac rupture and

had the patient under observation for several days previous to death. The pain was of such a character that a number of years later when called in just after a sudden death and listening to the description of the symptoms and pains, I made a suggestion that when the case came to a post-mortem examination of the following morning they would find a perforation of the left ventricle near the septum. This proved to be true and I was given the epithet of a "wizard in diagnosis." The very great majority of perforations occur at this location, hence this part of it was easy. Another interesting item was the fact that within a few days previous to death I climbed two flights of stairs in company with this fatty degenerated heart and at the top of the stairs the one with the degenerated heart said: "Why, Dr. Cole, you are out of breath, you must be getting old." It was true that the owner of the degenerated heart showed no sign of shortness of breath or discomfort of any kind.

The Los Angeles School Children's Clinic and Dispensary.

By Courtesy of Dr. H. F. True, Director School Health Department.

The School Children's Clinic of Los Angeles is under the auspices of two institutions,—the Board of Education of Los Angeles and the Parent-Teachers' Federation of Los Angeles,—the former an official department of the city, and the latter, a semi-official organization; each school having its own local club and these clubs co-operating with and aiding the schools in many ways. The Board of Education maintains the Out-Patient clinic known as the O. T. Johnson Public School Dispensary, and the Parent-Teacher Federation is the patron organization of the dispensary.

The dispensary occupies a three-story, concrete building fully equipped, and with the following departments: General medical, general surgical, skin diseases, eye, ear, nose and throat, speech defects, corrective physical training and orthopedic, nervous conditions, osteopathic, and dental. All the above are actively operating and are overcrowded.

By a curious phase of the laws, school departments cannot legally purchase the following: Medicines, dental filling materials, spectacles, crutches or braces; these the Parent-Teacher Federation undertakes to provide.

The reception of October 30, 1919, was to better acquaint the members of the 200 local Parent-Teacher associations with the working of the Clinic, that they might increase the supplies above noted, the Dispensary having developed so rapidly as to out-strip the previous generosity of its patron.

The speakers were introduced by Mrs. Charles F. Gray, President of the Los Angeles Parent-Teachers' Federation. Mrs. Gray, herself speaking for the Federation, Mr. Melville Dozier spoke for the Board of Education, Dr. Herbert F. True, Director of the School Health Department of which the Dispensary is a division, spoke of the general work of the department, Dr. Geo. L. Leslie first Director of the Department and one of the principal organizers of the Dispensary spoke of the early work done by Miss Elizabeth McMannus, Mrs. Taylor and himself, and Dr. Irving R. Baucroft, the Superintendent of the Dispensary, who is in direct charge, then gave the address of the afternoon and told of the work done and its present needs. Before and after the short meeting the visitors inspected the various departments and watched the doctors, dentists and nurses at work. The little children, themselves, happily greeted the distinguished guests and explained their own conditions in a way that surprised all, showing that among other things the Los Angeles school system teaches keen observation.

Miscellaneous.**Narcotic Clinic Assured.**

Los Angeles will establish a municipal dispensary and clinic for the decreasing dosage treatment of narcotic addicts. This was settled definitely at a meeting of the City Council after the councilmen listened to the amazing story of drug addiction, not alone in this city, but throughout the United States, as related by Collector of Internal Revenue John P. Carter, Health Commissioner L. M. Powers, Dr. John V. Barrow, Dr. Ross Moore, Dr. Dudley Fulton and others representing the County Medical Association.

The municipal clinic and dispensary will be established in the old Temple block. It will be open mornings and evenings and will be in charge of physicians working under the supervision of the health commissioner, a recognized druggist of ability, and nurses. Morphine and other narcotics will be prescribed at a cost a trifle above the wholesale price, and inside of three or four months the clinic will be on a self-sustaining basis, it is believed.

Collector Carter informed his audience that New York, New Orleans and Memphis already have established clinics. The New Orleans plan will be followed here. There was no publicity attached, the number of addicts treated finally reached 800, but as the treatment progressed it was greatly reduced, dropping to about 20 a day.

Happy with the success of the local campaign, Collector Carter will at once proceed to other cities in Southern California to continue the campaign.

Anti-Tuberculosis Association Closes at Long Beach.

With Dr. W. Jarvis Barlow of Los Angeles, president of the California Tuberculosis Association, presiding, the Southwestern Tuberculosis Association's three days' convention in Long Beach came to a successful close with a big public meeting. More than 400 delegates and several hundred interested citizens were in attendance. The Red Cross Peace Program and its relation to the public health was the topic of an interesting address delivered at the closing session by Dr. Livingston Ferrand, chairman of the central committee of the American Red Cross of Washington, D. C.

Dr. James Alexander Miller, medical adviser of the Rockefeller Commission in France during the war, told of his experiences with the disease in the ranks of the overseas forces of this country, and of the lessons that could be learned in fighting the plague as a result of the world conflict.

Dr. Wm. Palmer Lucas, chief of the children's department of the University of California, also discoursed on lessons from abroad and told how the experiences of other countries in wiping out the peril could successfully be applied to the United States.

At a meeting at the headquarters of the delegates to the annual convention, a resolution was adopted petitioning the United States Senate to introduce and pass a bill creating a division of tuberculosis in the public health service, in view of the fact that among contagious diseases the white plague is the greatest single menace to the nation.

Funds for Baby Hospital.

For twelve years Maternity Cottage has been aiding prospective mothers who are too poor to pay for necessary hospital treatment. The need of a new hospital building to care for the many women who apply for aid has become so great that plans have been prepared for a hospital and mothers of the city have been asked particularly to contribute to the fund needed.

In the past twelve years, more than 3000 mothers have been cared for, and after the planned

additions are built the facilities of the institution will be more than doubled. The Cottage is located at 127 South Utah St. Contributions may be sent to Mrs. Wm. Baurhyte, 1033 Edgeware Road, the president, who is in charge of the campaign to raise funds.

New Hospital for Whittier.

The new Milhous Memorial Hospital is a project made possible by the donation of \$50,000 to the city by Mr. and Mrs. Wm. Milhous, public spirited citizens of that place.

The building, construction of which will start within a short time, will stand in Alta Park, a slightly public recreation ground overlooking the surrounding valley. It will be a general hospital designed for a minimum of 30 beds, with one-story wings at either end accommodating the operating rooms and accessories and maternity hospital. Plans were prepared by architects Allison & Allison of Los Angeles.

The center portion of the building is 117 feet long and two stories high. It is divided into wards of from one to four beds each, a number of which have communicating bath rooms. The main corridor running through the building opens out on ample solariums at either end. In architectural style the building will suggest the colonial, with broad paved and grass terraces in front adapting it to the slightly location on the hillside overlooking Whittier. Masonry fireproof construction will be used. It will be equipped throughout with modern hospital installations. The cost of the equipment will be exclusive of the \$50,000 available for building purposes.

The hospital board includes A. C. Johnson, chairman; O. H. Barr, secretary; F. W. Hadley, A. C. Maple, Wm. Minget, Dr. A. Rosenberger and Wm. Milhous.

Maternity Cottage Store Seeks Gifts.

An appeal for cast-off clothing or any articles that can be repaired and sold has been made by the directors of the Maternity Cottage at 127 So. Utah St. All articles sent to the home are repaired and sold at a second-hand store conducted on the property owned by the Cottage, the receipts being used for the work of caring for expectant mothers who come to the Cottage for assistance.

The little store has a history of twelve years' useful work. The first month's receipts from the store years ago helped to start the work of Maternity Cottage, and since then it has contributed regularly to the funds of the institution.

Clothing is sold at a small profit, and many young mothers have been enabled to purchase articles there for their children. Youngsters attending school have been equipped with everything they need in the way of clothing from the counters of the store. It was stated that any article would be acceptable. Contributions should be sent to the Cottage.

PERSONALS**Physicians Notified of Service Citation.**

Dr. J. J. A. Van Kaathoven, local physician, was honored with a citation by General Pershing on April 19, 1919, "for exceptional, meritorious and conspicuous service," while with Base Hospital No. 35 in France.

Dr. Van Kaathoven's wife was Southern California chairman of the Junior Red Cross, during the war.

To Study Leprosy on Two Year Trip.

Dr. Chas. M. Zerfing, former police surgeon of Los Angeles, has applied for a passport to go abroad on scientific work. He expects to visit China, Japan, Hongkong, the Straits Settlements, India, Italy, France, Switzerland, Norway, Sweden and Great Britain, to make a study of leprosy and influenza. Dr. Zerfing will leave Vancouver on

November 27. He expects to be absent for two years.

Dr. Murietta Back.

That Dr. Jack Murietta is home again after an absence of two and a half years is welcome news. He was senior surgeon on one of the big transports, and left the first week of the war, and with the exception of Capt. Frank Simpson of the naval aviation, was longest in the service of any of the men who left at the beginning of the war. Morgan O. Adams, who was a lieutenant commander, died at the same time.

Army Doctor Coming to County Hospital.

Dr. J. Mark Lacey, who was connected with the Los Angeles County Hospital about six years and resigned to enter private practice, has been succeeded by Dr. Neal Laramore Wood as first assistant superintendent of charities and medical director for the department of charities of the County Hospital. He assumes his duties Nov. 1st.

Dr. Wood headed the eligible list of eighteen candidates for the position. Dr. Robert A. Jones passed No. 2 and Dr. Edwin D. Ward No. 3. The Board of Examiners included Dr. Fitch C. E. Mattison, Dr. Egerton Crispin, Dr. John V. Barrow, all of this city, and Dr. R. G. Brodrick of San Francisco.

Dr. Wood, who is 35 years old, is a graduate of the high school at Ann Arbor, Mich. He attended the University of Michigan, graduating in 1908; was instructor in the University of Michigan Medical School from 1908 to 1911. He attended the Army Medical School in Washington, D. C., was honor graduate in 1912 and served as instructor, physician and surgeon, sanitarian and hospital administrator in the United States Army from 1912 to 1918, being advanced from the rank of Lieutenant to that of Lieutenant Colonel. He saw active field service as medical officer on the Arizona border and also served at Fort Apache, Ariz. He commanded base hospitals at Camp Custer, Battle Creek and Pittsburgh.

Injuries Not Serious.

The German artillery shell which struck the American relief headquarters at Riga this week and wounded Dr. Thomas J. Orbison of Pasadena and Los Angeles, head of the American mission, did not fatally injure the Californian.

Friends here of Dr. Orbison received word in telegrams from Congressman C. H. Randall stating he had obtained through the state department advices that Dr. Orbison's hurts were not serious and that he was continuing "on the job" in Riga.

Before he went into army service more than a year ago, Dr. Orbison was head of the psychopathic ward of the County Hospital. He holds the rank of Major in the army.

Pathologist Returns.

The friends of Capt. Roy Hammack were pleasantly surprised a few days ago when the Captain returned from France, where he had been engaged as pathologist and bacteriologist in the Medical Corps of the Army. He entered the service two years ago and went to Camp Lewis; from there, directly to France where he was assigned to a mobile hospital unit and has seen service in several engagements.

After the armistice, he was with the army of occupation in Germany, located in Coblenz most of the time, returning to this country and demobilizing at the Presidio, San Francisco.

He was formerly Assistant Professor of Pathology and Bacteriology in the University of Philippines, Manila, and at one time was city bacteriologist in Los Angeles. At the time of the receipt of his commission he had been pathologist and bacteriologist at the Los Angeles County Hospital for some two years.

Returned.

Dr. Chester H. Bowers, Suite 924 Trust and Savings Bldg. Practice limited to diseases and surgery of the ear, nose and throat.

Louis Felsenthal, D. D. S., M. D., 902 I. N. Van Nuys Bldg. Oral Diagnosis and Surgery.

Dr. John C. Irwin has returned from service. Suite 523 Investment Bldg. Obstetrics and Gynecology.

Dr. H. S. Muckleston, 912 Van Nuys Bldg. Otolaryngology.

Dr. John W. Nevius, 718 Brockman Bldg.

MENDOCINO COUNTY.

On Saturday evening November 1, a regular meeting was held at Ukiah. Vice-President Samuel L. Rea, M. D., in the chair.

Present—Drs. S. L. Rea, George W. Stout, L. K. Van Allen and O. H. Beckman.

This meeting resolved to lower the county dues to \$1 per annum, to take effect January 1, 1920.

Dr. Edward C. Bennett, Covelo, was elected to membership.

It was also decided that as Saturdays and Mondays were busy days with the Ukiah fraternity those days would not be chosen for regular meetings hereafter. Willits is to be the next meeting place.

Dr. E. H. Sawyer, Navarro, has left our county, and it is rumored that he has driven his foundation piles for a new place to practice somewhere in Oregon. May good luck and prosperity graft themselves upon him and his family. Dr. Sawyer, please let us know your present address.

This Society still has one member in active service in the Navy, Lieut. Reuben H. Hunt, M. C., U. S. N. His letter is of some interest and therefore reproduced here.

Fourth Naval District, Philadelphia, Pa.

N. O. T. S. Navy Yard, Sept. 28, '19.

Dear Dr. Beckman:

I'll admit that you were quite justified in stating that I was lost. Last night Mrs. Hunt and I went to a Medical Library and found the California State Medical Journal and there saw your notice. It wasn't like reading one's death notice but at the same time gave one a sort of a shock. Oh, I'll acknowledge that I have not done my part but you know right after the armistice we all seemed to quit; things did not have the same interest after that.

About the time of the armistice I was on a mother ship anchored in Brest harbor. That duty gave me more medical stuff but did not have the thrills of the destroyer duty, but at that time there were no more thrills. I had a leave, went to Paris, met Mrs. Hunt and we went to Nice and to Monte Carlo. Had a nice time there but could not stay long enough. In a little while we worked it so that Mrs. Hunt had duty in Brest and we thought we were fixed fine and dandy when along came orders for me and I was shipped back to New York on the Leviathan. Then the next thing to do was to get my good wife in New York. Well that took about a month and about as soon as that was done along came orders for me to a ship—the U. S. S. El Sol. We put that ship in commission as a troop-carrying ship. She had been carrying cargo during the war.

Made a trip to Bordeaux and returned to Newport News. Made another trip to Brest and back with troops to Philadelphia, and then the ship was ordered out of commission. Saying "in commission" and "out of commission" does not take long but the process takes quite a while and is rather a discouraging job, for there seems to be so many things to do that no one seems to know how to go about.

I am now on temporary duty at the Navy Yard. I just reported yesterday so I don't know much about it yet. It is duty with the N. O. T. S., which means Naval Overseas Transportation Service. I do not think that it will last very long because there are no more transports. What after that? Well, that is part of the joy of military duty. You never know. I have made several requests to be ordered to the Pacific Coast but so far I have received nothing but promises. I do not know what they are going to do about letting me out of the service. You know last year they took me out of the Reserve and put me in the regular Navy with the temporary rank of lieutenant. They tell us that the temporaries will be let out in July, 1920; so I have a little bit to do yet.

Yours truly,

R. H. HUNT.

ORANGE COUNTY.

The regular November meeting of the Orange County Medical Society took place at the Public Library on the evening of the 4th. The paper of the evening was given by Dr. R. A. Cushman of Santa Ana and entitled "Better Men." The doctor showed in his valuable thesis that there was a great tendency on the part of the public to consider the underlying principles of eugenics and that was promise of more being done for the betterment and uplift of the race.

A committee consisting of Drs. Ball, Johnston and Shank was appointed to revise the fee bill. There has been little or no increase in rates in Orange County and many of the members are feeling the advanced prices incident to the "H. C. L." to such an extent that it has become necessary to make an increase in the fee bill.

Dr. H. D. Newkirk of Minneapolis has accepted a position with Drs. Johnston and Wickett of Anaheim. The doctor will devote his time exclusively to his specialty—Eye, Ear, Nose and Throat. Dr. Newkirk entertained the eye, ear, nose and throat men of the county with dinner at the Oyster Loaf Cafe with a result that a more friendly and cordial feeling is bound to exist in this community.

Drs. Zaiser and Johnston have returned from visiting eastern clinics.

SAN BERNARDINO COUNTY.

At the November meeting of the San Bernardino County Medical Society it was voted that the Subscription Committee for the League for the Conservation of Public Health see every doctor in the county whether a member of the Society or not and ask him to subscribe.

The committee on the revision of the fee schedule reported.

Drs. E. O. J. Eytinge, W. D. Lenker and R. W. Prince were elected to membership in the Society.

Dr. C. L. Curtiss of Redlands gave a report of the Southwestern Tuberculosis Conference in which he discussed the importance of education, especially instruction in Hygiene in the schools, the removal of the child from its tubercular surrounding, even its mother, if tubercular, and laws by which carrier cases can be controlled, concluding that the solution of the tubercular problem is in the next generation.

Dr. L. M. Ryan of Banning read a paper on "Pulmonary and Laryngeal Tuberculosis as Related to Contagion." He covered the subject of racial and family tendencies and childhood infections, massive infections in adults, re-infections and the question of carriers. His answer to the tubercular problem in general was education.

Dr. A. L. Bramkamp of Banning in his paper on "Mistakes in Diagnosis in Conditions Considered

Well Advanced Tubercular Disease," discussed the differential diagnosis with well chosen statistics which showed many errors in diagnosis as proved by autopsy, in cases that appeared very apparently tuberculosis.

There were many men present from the Riverside County Medical Society.

Following the meeting, refreshments were served by the nurses of the County Hospital where the meeting was held.

The program follows:

Report of the Southwestern Tuberculosis Conference, Dr. C. L. Curtiss, Redlands.

The Care of Pulmonary and Laryngeal Tuberculosis as Related to Contagion, Dr. L. M. Ryan, Banning.

Mistakes in Diagnosis in Conditions Considered Well Advanced Tuberculosis, Dr. A. L. Bramkamp, Banning.

Applications for Membership, Dr. W. D. Lenker, Dr. E. J. Eytinge, Dr. R. W. Prince.

The president has appointed the following committees:

Board of Censors—Dr. W. B. Power, chairman; Drs. J. H. Evans, E. S. Bolton, J. A. Champion, D. C. Strong.

Finance—Dr. C. G. Hilliard, chairman; Drs. P. M. Savage, J. A. Shreck.

Program—The President and Secretary, Drs. L. M. Coy, N. G. Evans.

Buffet luncheon.

SAN DIEGO COUNTY.

The annual election of the Society will be held on December 9th. Polls open from 10 to 6. Official tellers: Drs. J. F. Grant, N. Molitor, H. M. Wegeforth.

The following new members have been received during the past few months: Drs. P. B. Wing, H. P. Hendricks, A. D. Butterfield, John W. Warren, H. L. Hildreth, Charles W. Brown, F. A. Lee, Alice H. Crandall, J. H. Young, R. G. Hulbert, Lorin F. Wood, Sr. Major J. F. Percy has been received into associate membership.

On the evening of October 14th the Society spent an enjoyable clinical evening at the County Hospital. Cases were presented by Drs. Churchill, Grant, Kinney, Little, Wier, Wicherski and Wilson of the visiting staff, and also by Drs. Psota and Nerad of the house staff. The evening was brought to a close with the serving of refreshments by the nurses. Over fifty physicians, many of them from the outlying towns, enjoyed an hour or two of social as well as intellectual uplift.

On October 28th the evening was given over to the discussion of the conservation of the health of the child. Dr. H. B. Wilson presented a plea for more intelligent care during the first two years of the child's life, while Dr. Frances M. Allen spoke entertainingly on the special problems of the child during the pre-school age from two to six years. Discussions were liberal and fruitful.

The following members of the County Society have been appointed to service at the County Hospital beginning November 1:

Internal Medicine—Drs. Emil C. Black, Carl S. Owen.

Gynecology—Dr. H. P. Newman.

Tuberculosis (at Vaclain Home)—Dr. J. A. Parks.

The Council of the Society has endorsed the move on the part of the Collector of Internal Revenue for this district to establish a clinic for the treatment of drug addicts.

Dr. T. C. Pounds is being welcomed home by his many friends after three years' service in the Navy.

Dr. H. C. Loos (Lt.-Col. M. C., U. S. A.) has returned to civil practice with offices in the Watts building.

SAN FRANCISCO COUNTY. Society Meetings.

Proceedings of the San Francisco County Medical Society.

During the month of October, 1919, the following meetings were held:

Tuesday, October 7—Section on Medicine.

1. Paroxysmal tachycardia and other forms of arrhythmia in one individual. H. I. Wiel and M. F. Frandy.
2. Spastic paraplegia secondary to gas poisoning. O. G. Freyermuth.
3. Malingering. J. H. Catton.
4. Rupture of the uterus. A. F. Maxwell.

Tuesday, October 14—General Meeting.

Clinical examination of the head and neck, with particular reference to the brain stem, in the effort to simplify the diagnosis of chronic disorders thereof. J. W. Shiels.

Tuesday, October 21—Section on Surgery.

St. Luke's Hospital Clinical evening.

Meeting held at the hospital.

1. War-time apparatus as used in treatment of fractures in civil life. G. J. McChesney.
2. Chronic appendicitis. Wm. Kenney.
3. Fractional method of stomach analysis. E. V. Knapp.
4. The electrocardiograph. R. B. Tupper.
5. Differentiation between a diagnosis and a clinical fact. H. M. Sherman.

Tuesday, October 28—Section on Eye, Ear, Nose and Throat.

1. Demonstrations of cases and of treatments. Hans Barkan, H. A. Fletcher and W. S. Franklin.
2. Angioneurotic edema of the iris with secondary glaucoma. Hans Barkan.
3. Discussion of two cases of cerebellar tumor. H. B. Graham.
4. Misuses of the Voice. Miss N. J. Pooch Van Baagen (The Hague).

SAN JOAQUIN COUNTY.

The regular monthly meeting of the San Joaquin County Medical Society was held Friday evening, October 31, at the Chamber of Commerce quarters, President E. A. Arthur presiding. Those present were: Drs. E. A. Arthur, L. Dozier, S. F. Priestly, J. T. Davison, L. Haight, J. P. Martin, G. J. Vischi, Mary Taylor, Grace McCoskey, Margaret Smythe, E. E. Selleck, C. T. English, E. A. Edgerton, F. J. Conzelmann, J. W. Barnes, J. M. Gardner, Hudson Smythe, N. E. Williamson, J. M. Hench, W. J. Young, B. F. Walker, A. H. McLeish, F. S. Marnell, Howard Naffziger and D. R. Powell.

The paper of the evening on "Fracture of the Skull" was presented by Dr. Howard Naffziger of San Francisco. Dr. Naffziger, who is in charge of the brain and nerve surgery of the University of California, and who but recently served as Lieutenant-Colonel in the Division of brain surgery with the American expeditionary forces in France was able to speak with authority, based upon wide experience in his specialty. He spoke particularly of the type of case showing profound unconsciousness, slow pulse rate and other evidences of increased cranial pressure which can be relieved by a subtemporal decompression. The technic of this operation was illustrated by pictures thrown on the screen thereby making it more vivid and clear to his audience. After a short discussion Dr. Naffziger answered various questions which were presented to him. The meeting adjourned at 11 p. m.

SHASTA COUNTY.

At the regular meeting of the Shasta County Musical Society held October 18, 1919, Dr. A. B. Gilliland of Cottonwood was elected president of the Society. Dr. C. A. Mueller of Redding was

re-elected Secretary and Treasurer for the coming year. Dr. Ferdinand Sembel is holdover delegate to the State Medical Society convention with Dr. C. E. Reed as alternate.

TULARE COUNTY.

The regular meeting of the Tulare County Medical Society was held at Hotel Johnson, Visalia, October 19. Following the banquet Dr. E. H. Falconer, recently returned from service in France, gave a most interesting discussion upon the problems of blood transfusion as recently worked out both in military and civil practice.

The November meeting was held at the same place upon the 9th inst., when Dr. Lockwood of Pasadena presented a comprehensive review of the more recent fracture work as it occurred under his service in France.

The death of Dr. T. D. Blodgett of Tulare from a septic wound, was deeply felt by the entire local medical fraternity. He was former president of the Society and one of its most enthusiastic and faithful members, as well as one of the foremost practitioners of the county.

Post-Graduate Schedule for December

San Francisco.

Lane Medical Lectures, 8:15 p. m., December 8, 9, 10, 11, 12, 1919. Lane Hall, Sacramento and Webster streets, San Francisco. Dr. Alonzo E. Taylor.

The Feeding of the Nations at War.

1. The Problem of Feeding a Nation.
- II. The Feeding of the United Kingdom.
- III. The Feeding of France and Italy.
- IV. The Feeding of the Enemy States.
- V. The Food Problem of Europe After the War.

San Francisco Colloquia

October 16, 1919.

The Surgical Colloquium was conducted by Dr. Harold Brun.

1. Injection of whole blood into old ununited fracture of hip in a man showing some evidence of Pituitary disease.
2. Operation upon chest using Lilienthal incision, for cleaning out cavity following old Empyema.

October 17, 1919.

The Medical Colloquium was conducted by Dr. I. M. Wolfsohn.

1. Case of Tabes.
2. Discussion of case of Juvenile Paresis simulating Multiple Sclerosis.
3. Demonstration of case of Aphasia.
4. Interesting lecture on the Anatomy and Physiology of the brain, etc.

October 23, 1919.

Surgical Colloquium, Dr. J. R. Dillon.

1. Nephrectomy for tuberculosis of kidney. (Specimen showed numerous abscesses.)
2. Young's punch operation for contraction of neck of bladder.
Dr. H. W. Gibbons:
3. Laparotomy. Hydrosalpinx and sub-acute appendix.

October 24, 1919.

The Medical Colloquium was conducted by Dr. H. H. Yerington.

The following cases were demonstrated and discussed:

1. Case of miliary, pulmonary tuberculosis in an infant.
2. Case of Rickets.
3. Case of Bow-legs after operation. (Demonstrated by Dr. S. Nicholas Jacobs.)
4. Amoebic Dysentery of five years' duration with cure.

5. Demonstration of brain (post-mortem) with Necrosis of Cortex due to Salvarsan injection through anterior Fontanelle.

October 30, 1919.

Surgical Colloquium, Dr. J. R. Dillon.

1. Suprapubic Prostatectomy.
Dr. Emmet Rixford;
2. Plastic operation on hand following infection.
3. Correction of Bow-legs due to Rickets in child.
4. Demonstration of post-operative cases.

October 31, 1919.

The Medical Colloquium was conducted by Dr. Harold P. Hill.

1. Demonstration and discussion of three cases of Ascites with different etiological factors, viz.: (a) Sclerosis of Liver, (b) Cardiac decompensation, (c) Tubercular Peritonitis.
2. A case of marked Jaundice with Ascites.
3. Case of Malignancy, probably of the head of the Pancreas.

State Board of Medical Examiners

The Board of Medical Examiners held the annual meeting of the Board at the State Capitol, Sacramento, October 20-23, inclusive.

Twenty-eight applicants appeared for the written examination for Physicians' and Surgeons' certificate. Three midwives wrote the examination, two of whom wrote in the Japanese language.

An unusually large number of reciprocity applicants filed applications with the Board, the increase no doubt being due to the men who have returned from government service, having given up their home locations and knowing that it would be necessary for them to re-establish themselves, have decided that the mild climate of California affords far greater inducements than the rigors of the eastern winters. Sixty-two direct reciprocity certificates were granted and thirty-three qualified for reciprocity certificates after oral examination with five failures.

The College Investigating Committee reported on the various educational institutions in the State of California. The report leaves the College of Osteopathic Physicians and Surgeons in the same position, being approved as qualifying applicants for written examination for Drugless Practitioner certificate, inasmuch as a motion to approve the College of Osteopathic Physicians and Surgeons as qualifying applicants for a Physicians' and Surgeons' certificate failed to carry.

A number of citations were filed for hearing at the meeting with the following results:

J. Lafayette Berry, charged with practicing under a name other than his own—i. e., "K. P. Bloodless Surgeon"—was found guilty and his license to practice in the State of California revoked.

Dr. May Minaker, charged with violation of Subdivision I, Section 14, was found guilty and her license to practice in the State of California revoked.

Irving L. Ward, Yreka, charged with violation of the 6th Subdivision of Section 14 of the Medical Practice Act, was found not guilty and the charge dismissed.

William L. Grant, charged with violation of Subdivision 10 Section 14, was found not guilty.

James E. Thompson, charged with the violation of the 1st Subdivision of Section 14, was unable to appear owing to confinement in the Alameda County jail and the case went over until the February meeting of the Board.

The case of Galen R. Hickok was put over to the February meeting, inasmuch as he presented a Doctor's Certificate signed by Dr. W. A. Naylor, stating that Hickok was recovering from influenza and unable to appear.

The cases of James V. Calhoun, Donald Eugene Morris, Ephraim Northcott, C. C. Baker, Geo. W. O'Donnell and Harry Seth Walters were put over

to a subsequent meeting of the Board.

Gideon M. Freeman, whose license was revoked by the Board at the June 1919 meeting, requested reconsideration which the Board denied.

Counsel appeared for Dr. Geo. H. Richardson of Los Angeles, whose certificate was revoked at the March 1919 meeting of the Board and petitioned for the restoration of the license, which was denied.

James Decker, reciprocity applicant from Colorado, was denied a certificate.

John V. Martin was appointed Associate Counsel of the Board for Southern California, to assist Chief Counsel Harry Encell in the legal work of the Board.

The report of the Secretary of the Board showed receipts, up to October 1, 1919, amounting to \$53,410.31, and expenditures for the same period of 1919 amounting to \$36,706.89.

The legal reports show unusual activity in the matter of investigation of violators throughout the State of California. The Southern Department reported \$6,100 in fines since January 1, 1919, as the result of the following summary of activities: Guilty, 37; dismissed, 8; no information filed, 2; acquitted, 2; pending, 15; total, 64.

The report of Northern California showed active investigation in San Francisco, Oakland, Stockton, Sacramento, Modesto, Fresno.

The increased income from annual tax has provided a fund which will permit the development of a most efficient investigation department.

The meeting dates adopted for the year 1920 are: February 16-19, Los Angeles; June 28-July 1, San Francisco; October 18-21, Sacramento.

HYGIENE AND SANITATION.

ALFRED J. SCOTT, M. D.

(For Physicians and Surgeons, Drugless Practitioners and Midwives.)

October 23, 1919, 8:30-10:30 a. m.)

(Answer ten questions only.)

1. Differentiate between endemic, epidemic, pandemic.
2. Example of diseases causing same.
3. What is meant by natural and acquired immunity from disease? Example of each.
4. What are the principal means which you would employ for the prevention of the spread of infectious diseases?
5. Give the special hygiene of factories in which women and children are employed.
6. How may the presence of a typhoid carrier be detected?
7. Name four diseases, to which the human race is susceptible, that may be transmitted through cow's milk.
8. What interpretation can be placed on the relative amount of nitrates and nitrites in well water?
9. What conditions and diseases in animals render their flesh unfit for human food?
10. Name the filth diseases, give the prophylaxis of same.
11. How much fresh air is required for normal respiration during the twenty-four hours?
12. What precautions should a physician observe to avoid carrying a contagious disease?
13. What hygienic precautions should be observed by a pregnant woman?

CHEMISTRY AND TOXICOLOGY.

HARRY V. BROWN, M. D.

(Physicians and Surgeons.)

October 23, 1919, 2:00-4:00 p. m.

(Answer ten questions only.)

1. What are the metals of the arsenic group?
2. What two solutions of arsenic are official?
3. Silver Nitrate. Give its appearance; how prepared; symbol; synonyms. What per cent. may be used in the eye and in the throat?
4. What do you understand by the term colloidal chemistry?
5. What is a calorie? Explain the calorie method of feeding.
6. Classify foods. Discuss one class.
7. What are enzymes? Discuss their characteristics.
8. (a) What constitutes metabolism?
(b) What is a nitrogenous equilibrium?
9. What is a lethal dose of
Tincture Aconite,
" Belladonna,
" Gelsemium?
10. What is the result of a tablespoonful of camphorated oil, if swallowed by a one-year old child?

11. Give symptoms and treatment of poisoning by wood alcohol.
12. What is the chemical cause of death in inhaling illuminating gas? Give treatment.

SURGERY.

P. T. PHILLIPS, M.D.
(For Physicians and Surgeons.)
October 22, 1919, 2:00-4:00 p. m.
(Answer ten questions only.)

1. Discuss acid intoxication following general anesthesia, its etiology, prognosis, prophylaxis and treatment.
2. Draw schematic diagram, antero-posterior, of a Potts fracture. Give treatment in detail.
3. Give the indications for operation in traumatic insanity.
4. Discuss congenital talipes.
(a) Theories as to cause.
(b) Varieties.
(c) When should treatment be instituted?
(d) Briefly describe treatment.
5. Give the diagnosis of stone in common duct. Describe in detail the surgical treatment.
6. Describe the pathology in dislocation of femur (hip joint). Name the varieties and give treatment for one.
7. When is taxis contra-indicated for the reduction of strangulated hernia? Describe its application in strangulated, oblique, inguinal hernia.
8. What conditions require tracheotomy, name the diseases in which they occur. Describe the operation.
9. Discuss briefly sacro-iliac relaxation.
10. Give the indications for paracentesis tympany. Describe the operation.
11. Give the symptoms of nephroptosis. Discuss briefly the treatment, with special reference as to relative value of operative and non-operative measures.
12. Give the different causes of traumatic keratitis, with the treatment.

GENERAL MEDICINE, INCLUDING CLINICAL MICROSCOPY.

HARRY E. ALDERSON, M.D., San Francisco.
(For Physicians and Surgeons only.)
October 21, 3:00-5:00 p. m.
(Answer ten questions only.)

1. A fat infant eight months old has urticaria, eczema and diarrhea, alternating with constipation. Discuss the clinical and laboratory diagnosis.
2. A young man has steadily developing blindness in one eye, ulcers in mouth and arthritis of several weeks' duration. Discuss probable diagnoses and prognosis.
3. A young woman has several deep, red, painful, roundish, semi-fluctuating swellings on both legs, arthritis and irregular temperature. Discuss differential diagnosis and treatment.
4. A young man shows increased sweating, nervousness, loss of weight and tachycardia. Discuss diagnosis and prognosis.
5. A young man has iritis, several genital ulcers and general adenopathy, all six weeks duration. Discuss fully clinical and laboratory diagnosis.
6. What probable significance would glycosuria, and slowly developing blindness, have in a young woman?
7. An infant has indigestion, refuses milk, is very fretful, has high temperature, and unilateral pain in neck. Discuss probable diagnosis and treatment.
8. A young man of dull appearance, thick skin, scanty hair growth, presents also bradycardia. Discuss diagnosis and treatment.
9. A young man has chancre and roseola luetica. When may he be permitted to marry?
10. A middle-aged woman presents rapidly developing inguinal and axillary adenitis, high temperature and great prostration. Discuss clinical and laboratory diagnosis.
11. Discuss briefly the etiology, symptoms and laboratory diagnosis of amebiasis.
12. A young woman has severe, acute inflammation (with oedema) of tonsils, throat and buccal mucosa, and fever. Discuss laboratory and clinical diagnosis and treatment.

GENERAL DIAGNOSIS.

HARRY E. ALDERSON, M.D., San Francisco.
(For Drugless Practitioners only.)
October 21, 3:00-5:00 p. m.
(Answer ten questions only.)

1. Discuss the significance of foetid breath.
2. A child has high temperature, sore throat, diarrhea, red tongue, and a generalized redness of the skin. Discuss the possible diagnoses.
3. A young man has patchy baldness, sore throat, malaise, swollen glands, and slight joint pains. Discuss the diagnosis.
4. A young woman has severe, sharp pain in right lumbar region. Discuss diagnosis.
5. An infant has unilateral stiff neck, fever, is very fretful and refuses its milk. Discuss briefly diagnosis.
6. Discuss briefly technique of blood pressure estimation (systolic and diastolic.)

7. Discuss diagnosis of ulcer of stomach.
8. Discuss the clinical diagnosis of bubonic plague.
9. Discuss the diagnosis of smallpox in its earliest phases.
10. A man has a hard non-inflammatory tumor near the knee. Discuss briefly diagnosis.
11. Discuss the probable causes of vertigo in a woman 40 years old.
12. Discuss the significance of persistent pain in the legs.

GYNECOLOGY AND OBSTETRICS.

ROBERT A. CAMPBELL, M.D.
(For Midwives only.)

October 22, 1919, 8:30-10:30 a. m.
(Answer ten questions only.)

1. (a) Name the internal genital organs.
(b) Name the external genital organs.
2. What are the causes of postpartum hemorrhage?
3. Give the treatment of post partum hemorrhage.
4. Discuss the artificial feeding of infants during the first three months.
5. Tell what you would do for the baby during the first 48 hours following birth.
6. Discuss ophthalmia neonatorum.
7. Name the articles required by law for a midwife to carry in her obstetrical bag.
8. Name the conditions in which a physician should be called.
9. On going to a case, tell what you would do preparatory for a delivery.
10. Discuss mastitis.
11. Discuss the use of antiseptics in obstetrics.
12. Discuss the care of the woman during the first two weeks following delivery.

OBSTETRICS AND GYNECOLOGY.

ROBERT A. CAMPBELL, M.D.

(For Physicians, Surgeons and Drugless Practitioners.)
October 22, 1919, 8:30-10:30 a. m.

(Answer ten questions only.)

1. Give differential diagnosis between right-sided salpingitis, tubal pregnancy and appendicitis.
2. Define menorrhagia, metrorrhagia, dysmenorrhoea, amenorrhoea, dystocia.
3. Give the origin and distribution of
(a) The blood supply of uterus and ovaries.
(b) Nerve supply of uterus and ovaries.
4. Differentiate a four months' pregnancy from four other conditions causing enlargement of the abdomen.
(a) Name the indications for version.
(b) Describe the operation of podalic version.
5. Describe the operation for vaginal hysterectomy.
6. Name the female genital organs.
(a) Internal. (b) External.
7. Post partum hemorrhage.
(a) Give four predisposing causes.
(b) Give four immediate causes.
(c) Give treatment.
8. Describe mechanism of labor in R. O. A. position.
9. Discuss vomiting of pregnancy.
10. Discuss artificial infant feeding during the first three months.
11. Describe the change in the foetal circulation upon ligation of the umbilical cord.

PATHOLOGY AND BACTERIOLOGY.

LEMUEL P. ADAMS, M.D.

(For Physicians, Surgeons and 2,000 Hour Drugless.)
October 22, 1919, 10:30-12:30.

(Answer ten questions only.)

1. Define the following terms:
Anemia, Hemorrhage,
Embolism, Edema,
Thrombosis, Inflammation,
Toxin, Atrophy,
Ptomaine, Degeneration,
Leucomaine, Necrosis,
Glycosuria, Tumor.
2. Give the etiology, microscopic pathology and results of an acute endocarditis.
3. Give the etiology and differential diagnosis of enlarged cervical lymph glands.
4. Give the etiology and morbid chemistry of fatty degeneration.
5. Name two malignant and five benign tumors.
6. Give the differential diagnosis in the gross between a malignant and benign tumor.
7. Name the types of pneumonitis. Give the differential diagnosis gross and microscopic between lobular pneumonia and multiple hemorrhagic infarcts of the lung.
8. What is the difference between active and passive immunity? Give an example of each.
9. Name four methods by which acquired immunity may be produced artificially and give an example of each method.
10. What is tuberculin? Why does the injection of tuberculin fail to produce a reaction in a healthy person? Why does it produce a reaction in an individual affected with tuberculosis? Why may it fail to produce a reaction in an individual that has recently reacted?
11. Explain what is meant by complement fixation and describe briefly the elements and principles involved.

12. Describe in detail how you would make a diagnosis in a case of suspected diphtheria; also name the organisms that might be mistaken for the Klebs-Loeffler bacillus.

ANATOMY AND HISTOLOGY.

WM. R. MOLONY, M.D.

(For Physicians, Surgeons and Drugless Practitioners.)

October 21, 1919, 10:30-12:30.

(Answer ten questions only.)

1. Describe the lachrymal apparatus.
2. Discuss the histology of the cornea.
3. Locate and give the relation of the prostate gland.
4. Give the histology of the prostate gland.
5. Locate and give relations of the parotid gland.
6. Give histology of the parotid gland.
7. If the radial (Musculo spiral) nerve be severed, what structure distal to the cut will be affected?
8. Indicate by diagram the important tracts, and the distribution of nerve tissue, in a cross section of the spinal cord in the mid-dorsal region.
9. Describe fully the sacro-iliac articulation.
10. Give origin, insertion and nerve supply of the sterno mastoid muscle; action when acting singly and together.
11. Locate and give relations of thyroid gland.
12. Give the histology of the thyroid gland.

PHYSIOLOGY.

C. J. GADDIS, D.O.

(For Physicians, Surgeons and Drugless Applicants.)

October 21, 1919, 8:30-10:30 a. m.

(Answer ten questions only.)

1. How is a normal body heat maintained? What are the physiological aspects of fever?
2. Discuss briefly (a) phagocytosis, (b) diapedesis.
3. What is the composition and the action of bile?
4. Classify and give function of white blood corpuscles.
5. Give the physiological action of the pneumogastric nerve.
6. Describe the heart sounds; what causes them?
7. Describe the process and stimulation of respiration.
8. Name the enzymes and describe their function.
9. Discuss the factors which maintain blood pressure.
10. Discuss cerebro-spinal fluid.
11. Describe lymph, its function, its circulation.
12. What is the effect of complete paralysis of the (a) third cranial nerve, (b) trigeminous.

PHYSIOLOGY AND ANATOMY.

C. J. GADDIS, D.O.

(For Midwives.)

October 21, 1919, 8:30-10:30 a. m.

(Answer ten questions only.)

1. What are the subjective signs of pregnancy?
2. What changes occur in pelvic joints during pregnancy?
3. What are the signs of pregnancy by palpation?
4. What should the pulse, temperature and respiration be in a three weeks old infant?
5. What should the pulse, temperature and respiration be in the mother?
6. What are the functions of the placenta?
7. What are the fontanelles?
8. What are the diameters of the cavity of the pelvis and what should they measure?
9. What are the uses of the liquor amnii?
10. Name the internal and external genital organs.
11. What is a "blue baby?"
12. What are the foetal appendages?

New Members

Peters, Chas. F., Oakland, Cal.
 Earnsworth, David C., Oakland, Cal.
 Smith, Harry L., Oakland, Cal.
 Wahrer, Carl W., Sacramento.
 Martin, J. P., Stockton.
 Kaufman, Bernard, San Francisco.
 Leonard, A. T., San Francisco.
 Hildreth, H. L., Santa Ysabel.
 Rodlin, T. P., San Francisco.
 Sewall, R. J., Cartago, Inyo Co.
 Dahl, Wm. Z., Sacramento.
 von Geldern, C. F., Sacramento.
 Thompson, Herbert L., Azusa.
 Timme, A. R., Los Angeles.
 Sexton, Charles L., Los Angeles.
 McCullough, W. A., Los Angeles.
 Vallee, J. E., Los Angeles.
 Copeland, John C., Los Angeles.
 Waggoner, C. Carroll, Los Angeles.
 Abbott, John G., Los Angeles.
 Kavinoky, Nahm, Los Angeles.
 Cooley, Mahlon C., Los Angeles.
 Fallas, Roy E., Los Angeles.
 Thomas, Roy F., Los Angeles.

Sherry, Leroy B., Pasadena.
 Carey, Geo. H., Los Angeles.
 Cass, Donald, Los Angeles.
 Green, Dwight M., Los Angeles.
 Muckleston, Harold S., Los Angeles.
 Cummings, R. S., Los Angeles.
 McQuarrie, J. G., San Francisco.
 Harrington, J. G., San Francisco.
 Kruse, F. L., San Francisco.
 Baldwin, Margaret, Oakland.
 Geddes, Mabel A., Oakland.
 Hjelte, Safford G., Oakland.
 Berry, Stanley F., Oakland.
 Haldeman, F. D., Berkeley.
 Adams, W. C., Stockton.
 Hurst, Katherine M., Patterson.
 Claves, W. L., San Francisco.
 Schloss, Aaron, San Francisco.
 Lane, P. H., San Francisco.
 Derham, Vincent C., San Francisco.
 Kerr, Wm. J., San Francisco.
 Reeves, E. W., Salinas.

Transferred

Dr. B. C. Anderson, from San Bernardino Co. to Fresno Co.

Dr. Clifford D. Sweet, from Fresno Co. to Alameda Co.

Deaths

Maggard, W. F. A graduate of College of Physicians and Surgeons, Keokuk, Iowa, 1879. Licensed in California 1880. Died in Corning, Calif., October 21, 1919.

Blodgett, Thos. De Haven. A graduate of Cooper Medical College, San Francisco, 1894. Licensed in California 1895. Died in Tulare, November 10, 1919, of blood poisoning. Was a member of the Medical Society, State of California.

Armstrong, Mary A. A graduate of University of Michigan, 1879. Licensed in California 1897. Formerly lived in Santa Cruz, Calif. Died in Berkeley, November 3, 1919. Was one of the first women physicians in United States.

Burk, George W., Sisson. A graduate of Cooper Medical College, Calif., 1893. Licensed in California 1894. Died in Yreka, Calif., October 24, 1918, of influenza.

Robert, Ernest L. A graduate of Marion Sims Med. Coll., Mo., 1899. Licensed in California 1914. Was killed in Sawtelle, Calif., October 12, 1919. Was a member of the Medical Society, State of California.

Cook, Christian A. A graduate of the Eclectic Medical School, 1876. Died in San Francisco, August 20, 1919.

Condon, Chas. E., a resident of Jamestown, Calif. A graduate of Med. Dept. University of Kentucky, 1894. Licensed in California 1894. Died in San Francisco, September 6, 1919.

Church, Benj. F. A graduate of College of Physicians and Surgeons, Baltimore, Md., 1888. Licensed in California 1895. Died in Los Angeles, September 4, 1919. Was a member of the Medical Society, State of California.

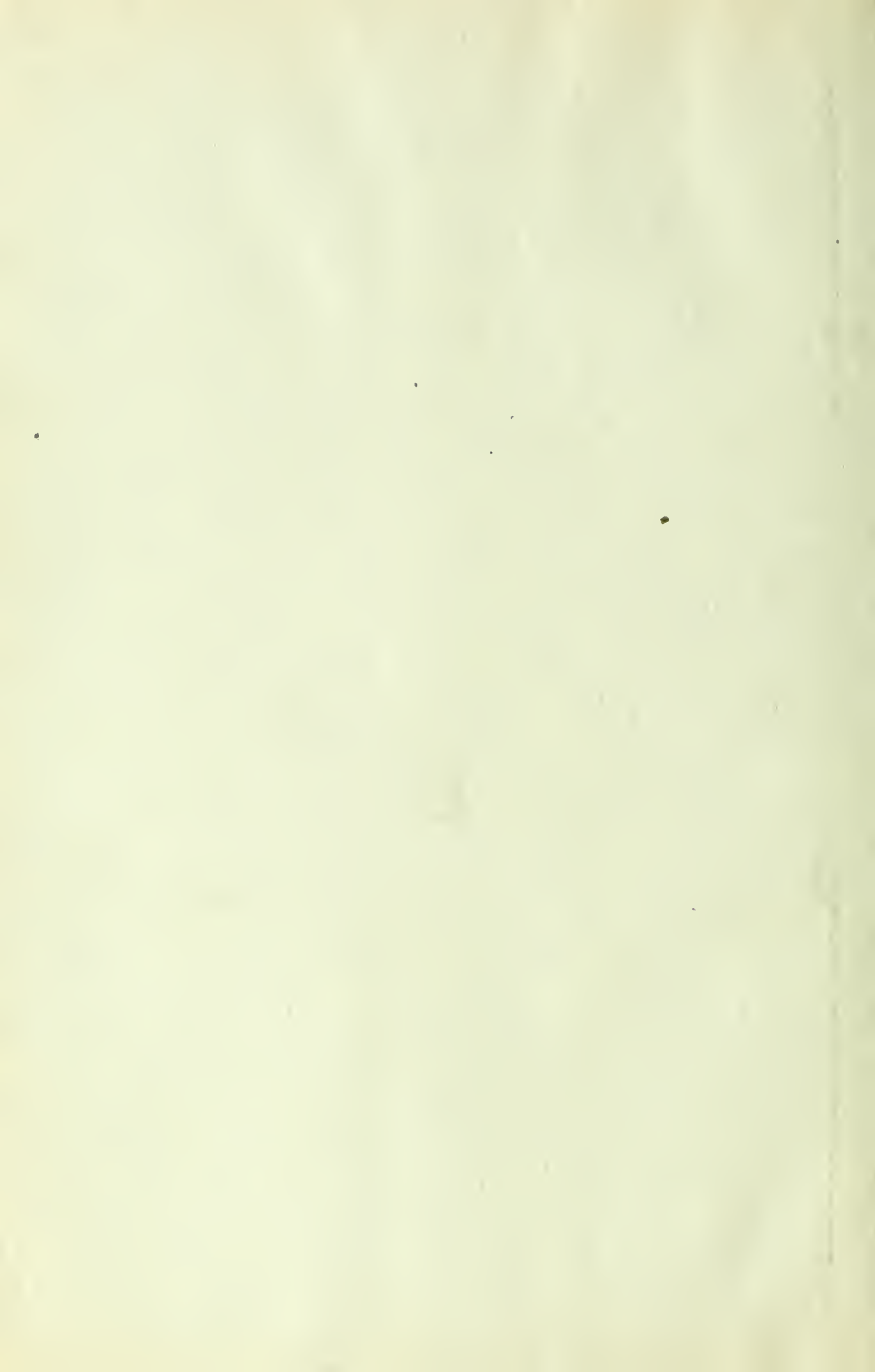
Smith, A. M. A graduate of College of Medicine, University of Southern California, 1898. Licensed in California 1899. Died in Los Angeles, August 10, 1919.

Troppman, C. M. A graduate of College of Physicians and Surgeons, 1897. Licensed in California 1897. Died in San Francisco, September 20, 1919.

Wood, James Burris. A graduate of Western Pennsylvania Med. College, 1892. Licensed in California 1896. Died in Oakland, September 9, 1919.

Arnold, J. Dennis. A graduate of Washington University, Md., 1876. Licensed in California 1884. Died in San Francisco, September 26, 1919.





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